XR-7201/7202/7400

SERVICE MANUAL

US Model
Canadian Model
XR-7400

AEP Model
XR-7201/7202

Photo: XR-7201

SPECIFICATIONS

Cassette player section

Tape track 4-track 2-channel stereo
Frequency response 30 – 20,000 Hz
Signal-to-noise ratio

Cassette type	Dolby B	Dolby C	Dolby off
TYPE II, IV	66 dB	76 dB	58 dB
TYPE I	63 dB	73 dB	55 dB

Wow and flutter 0.09% (WRMS)

Tuner section

FM

Tuning range 87.5–108.0 MHz(XR-7201/7202)
87.9–107.9 MHz(XR-7400)
Antenna terminal External antenna connector
Usable sensitivity 12 dBf (75 ohms)
Selectivity 75 dB at 400 kHz
Signal-to-noise ratio 65 dB (stereo), 70 dB (mono)
Harmonic distortion at 1 kHz
0.5% (stereo), 0.3% (mono)
Separation more than 30 dB at 1 kHz
Frequency response 30 – 15,000 Hz
Capture ratio 2 dB

AM

Tuning range MW: 531–1,602 kHz(XR-7201/7202)
530–1,710 kHz(XR-7400)
LW: 153–279 kHz(XR-7201)
Antenna terminal External antenna connector
Sensitivity MW: 35μV
LW: 70μV (XR-7201)

Model Name Using Similar Mechanism	XR-7200
Tape Transport Mechanism Type	MG-55A-31

General

Output lead Power antenna relay control lead
Tone controls Bass ±10 dB at 100 Hz
Treble ±10 dB at 10 kHz
Loudness +7 dB at 100 Hz
+7 dB at 10 kHz
Power requirements 12 V DC car battery (negative ground)
Dimensions (without bracket)
Approx. 178 × 50 × 153 mm (w/h/d)
not incl. projecting parts and controls
Mounting dimensions
Approx. 182 × 53 × 145 mm (w/h/d)
not incl. projecting parts and controls
Weight Approx. 1.9 kg
Accessories supplied
Mounting hardware (1 set)

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

FM/AM CASSETTE CAR STEREO
XR-7202/7400

FM/MW/LW CASSETTE CAR STEREO
XR-7201

SONY®

MICROFILM

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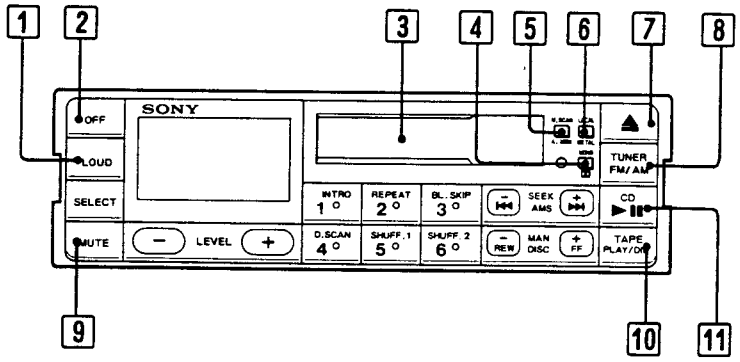
Location and Function of Controls



Refer to the page in ● for details.

1 **LOUD (loudness) button**
Press to reinforce bass and treble especially when listening at low volume. To disengage the button, press it again.

2 **OFF (power off) button**
Press to turn off the unit.

3 **Cassette insertion door**

• **XR-7201/7400:**

	During radio reception	During tape playback
4	MONO (monaural) button ❽	□□ button ❼
5	M. SCAN (memory scan)/ A.MEM (automatic memory) button ❽	–
6	LOCAL button ❽	METAL (metal/CrO_2) button ❼

• **XR-7202:**

4 **DSPL (display) button ❽**

	During radio reception	During tape playback
5	SENS (sensitivity) button* ❽	□□ (Dolby NR B-C) button ❼
6	A.MEM (automatic memory) button ❾	METAL button (metal/CrO_2) ❼

* It also functions as **MONO (monaural)** button. ❽

7 **⏏ (eject) button**

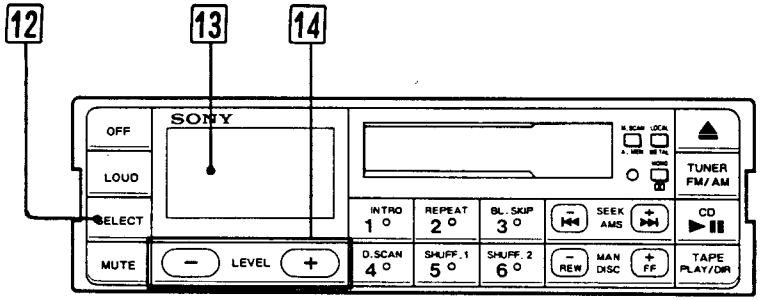
8 **FM/MW/LW (XR-7201) TUNER FM/AM (XR-7202/7400) (radio on/band select) button**

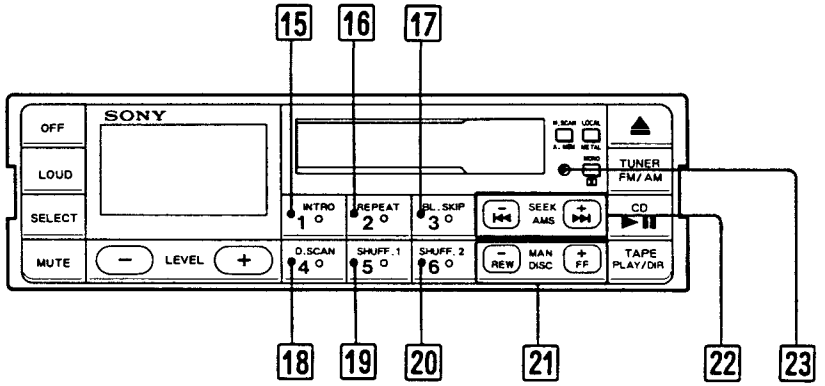
9 **MUTE button (XR-7201/7400)**
Press to momentarily mute the sound. Press again to restore the same sound level as before.
SDK button ❿ (XR-7202)

10 **TAPE PLAY/DIR (tape playback/ transport direction change) button ❼**

11 **CD ▶II (disc play/pause) button ❾**

Location and Function of Controls





12 SELECT (control mode select) button
Press to select the desired control mode, BAS (bass), TRE (treble), BAL (balance), FAD (fader), or VOL (volume).

13 Display window

14 LEVEL (volume/tone/balance/fader: XR-7201/7202 control) button
LEVEL button normally functions as the volume control. Adjust the level within three seconds after selecting the desired control mode. Otherwise, the mode goes back to the volume control mode.

Display window	Control mode	Press −	Press +
BAS	Bass control	For less bass	For more bass
TRE	Treble control	For less treble	For more treble
BAL	Balance control	To decrease the right-speaker volume	To decrease the left-speaker volume
FAD	Fader control	To decrease the rear-speaker volume	To decrease the front-speaker volume
VOL	Volume control	For less volume	For more volume

	During tape playback	During disc play	During radio reception
15	INTRO button ❼ ⓫		Preset number buttons ❾
16	REPEAT button ❼ ⓫		
17	BL. SKIP (blank skip) button ❼	–	
18	–	D.SCAN (disc scan) button ⓫	
19	–	SHUFF. (shuffle) 1 button ⓫	
20	–	SHUFF. (shuffle) 2 button ⓫	
21	FF/REW (fast forward/ rewind) button ❼	DISC (disc change) button ❾ Manual search button (when keep pressed longer than 0.5 sec.) ❿	MAN (manual tuning) button ❽
22	AMS* button		SEEK (automatic tuning) button ❼

23 Reset button
Press this button when no other button functions.

*Automatic Music Sensor

Note: Mute function, intro play, repeat play, disc scan, and shuffle play (1 and 2) will be cancelled when you press OFF button or when you keep the ignition key set to the off position for more than eight seconds. Blank
- **XR-7201/7400:**
  Blank skip function will be maintained until you press BL. SKIP button again.
- **XR-7202:**
  Blank skip function and SDK function will be maintained until you press these buttons again.

Supplied Mounting Hardware

The numbers in the list are keyed to those in the instructions.

① 3-310-655-01 ×1

② 3-302-126-01 ×1

③ 7-682-583-04 ×1

④ 7-684-025-04 ×1

⑤ 3-349-410-01 ×1

⑥

⑦ 3-349-458-01

L × 1 : 3-349-456-01
R × 1 : 3-349-457-01 × 1

Installation

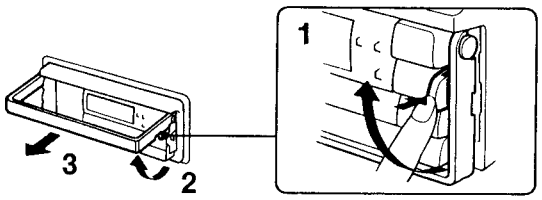
Precautions

- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it should be subject to high temperatures, such as from direct sunlight or from hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.

Note on the carrying hyandle
The unit can be installed with or without the carrying handle. When you want to take the unit with you when you leave your car, install the unit with the carrying handle (see instruction 3 A). If not, install it without the carrying handle.

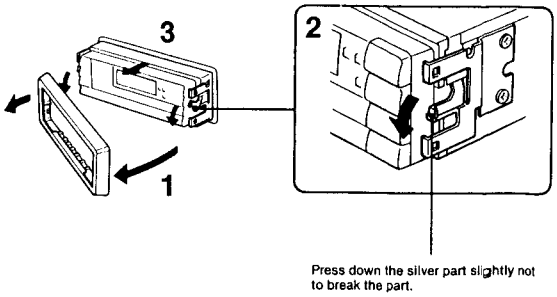
To Remove the Unit

When installed with the carrying handle



To prevent the unit from being stolen
When you leave your car, remove the unit from the bracket and take it away with you.

When installed with the carrying handle



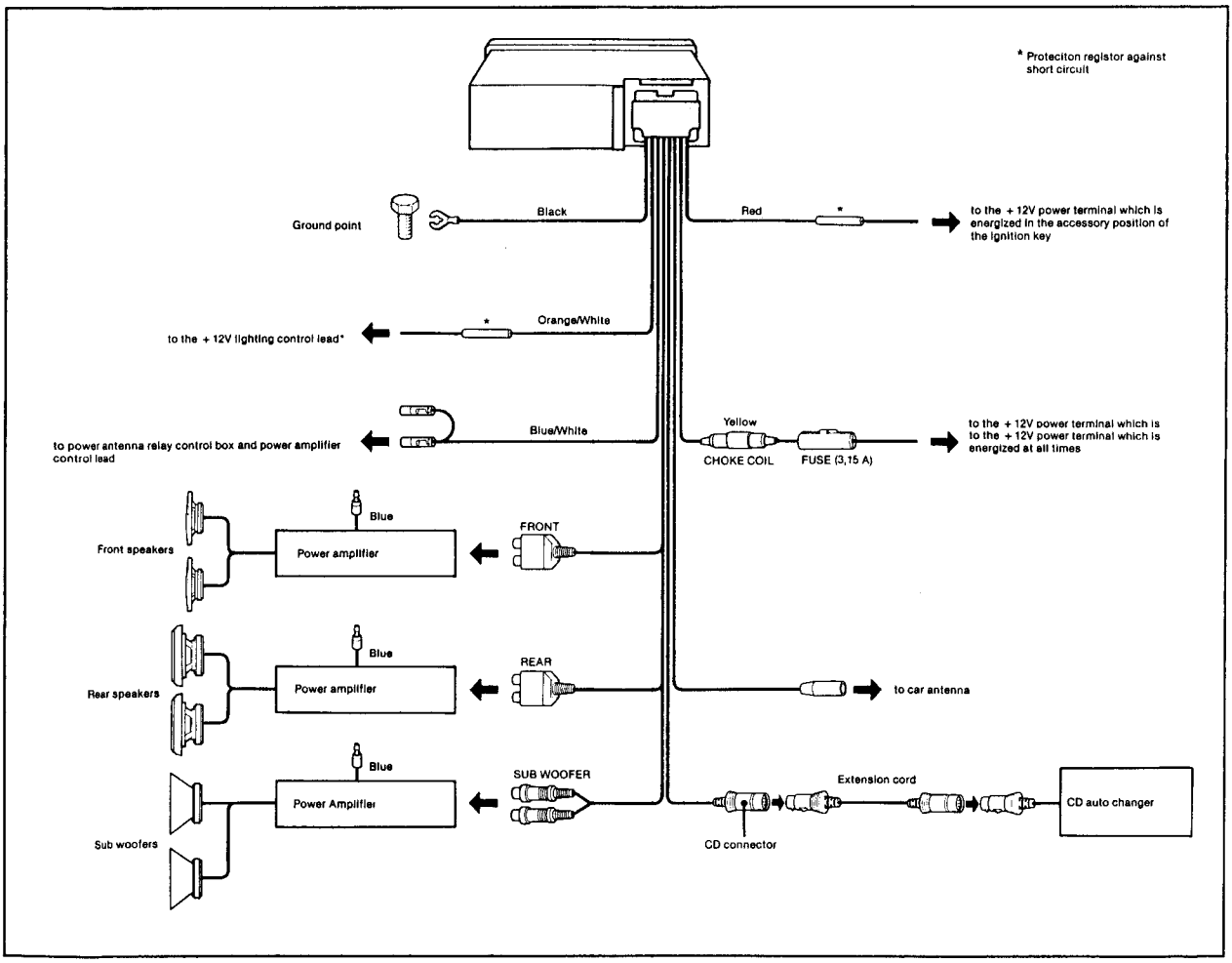
Press down the silver part slightly not to break the part.

Connections

Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the red power input lead only after all other leads are connected. And be sure to connect it to the positive 12 V power terminal. It will be energized when the ignition key is set to the accessory position.
- **Run all ground wires to a common ground point.**

Connection Diagram

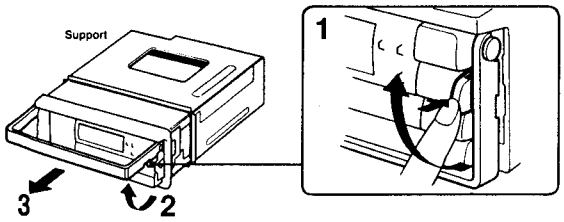


* When you turn on the sidelights of the car, the display window becomes dimmer than before. If you want to keep it bright, press D. SCAN, while pressing SELECT. Press these buttons again to make it dim.

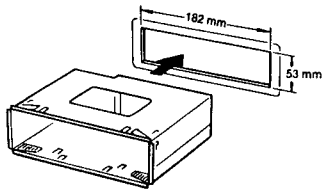
Note: A power antenna without relay box cannot be used with this unit. For details about the power antenna, refer to the power antenna instruction manual.

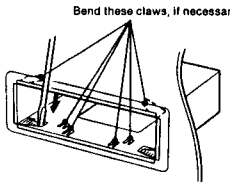
After completing the connections, press the reset button of this unit.

1 Remove the Unit from the Bracket

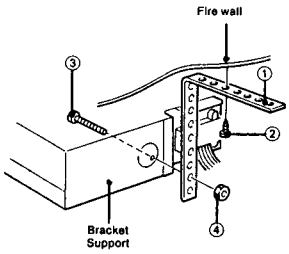


2 Install the Bracket in the Dashboard

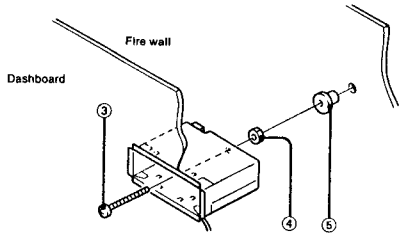




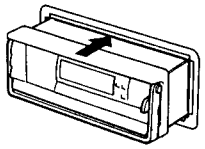
Example 1



Example 2

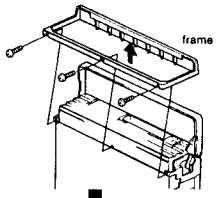


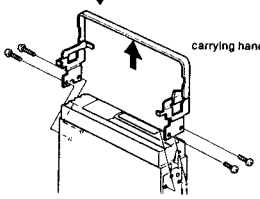
3A When installing the unit with the carrying handle

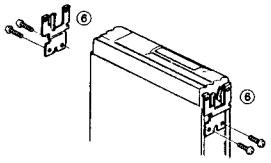


Push in the unit until it is locked firmly.

3B When installing the unit without the carrying handle

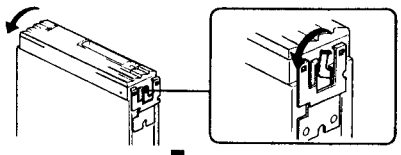


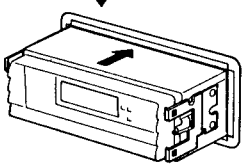


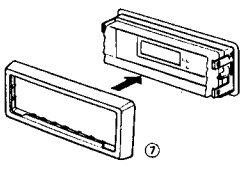


Use the screws removed in the previous step.

Press down the lever.

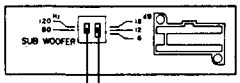






When Connecting the Sub-woofer Speaker System

The SUB WOOFER output is provided for the powerful bass reproduction. When you connect the power amplifier for the sub-woofer speaker system with this unit, set the SUB WOOFER switches on the rear to the appropriate positions.



Select the output level to be boosted.

Select the cut-off frequency lower than which is to be boosted.

For the detailed information on connections, see the supplied installation/connections manual.

XR-7201/7400:

Listening to Dolby NR-processed Tapes

Press MONO

Select Dolby B or Dolby C.
Select the same Dolby NR system used for the recorded cassette.
Dolby NR (Noise Reduction) system reduces tape hiss noise in low-level, high-frequency signals.

XR-7202:

Listening to Dolby NR-processed Tapes

Press SENS

Press once for Dolby B and once again for Dolby C.
The corresponding indicator is displayed on the window.
Select the same Dolby NR system used for the recorded cassette.
Dolby NR (Noise Reduction) system reduces tape hiss noise in low-level, high-frequency signals.

Locating the Beginning of a Desired Selection during Playback (AMS Function)

To locate the beginning of the selection being played	Press ⏮
To locate the next selection	Press ⏭

Listening to the Beginnings of Selections in Order (Intro play)

Press INTRO 1 (during tape playback)

First ten seconds of each selection will be played back in order from the next selection. Press again to release it.

Repeating the Selection Being Played (Repeat play)

Press REPEAT 2

The unit goes back to the beginning of the selection when the selection ends.

Skipping the Long Blank (Blank skip function)

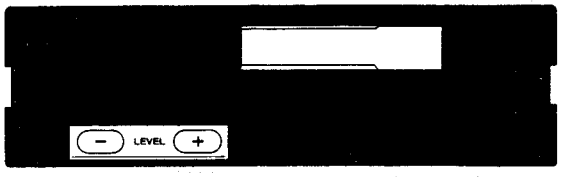
Press BL. SKIP 3

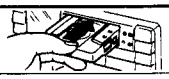
The unit skips the long blank (more than eight seconds) automatically and plays back the next selection. Press again to release this function.

Side of the cassette being played back
This unit plays back both sides of the cassette repeatedly. The indicator on the display window shows which side of the cassette is being played back.

Indicator	Side
▶	The side facing upward
◀	The side facing downward

Tape Playback



1  Insert a cassette to start playback.

2 LEVEL Press to adjust the volume.

Other Operations

To rewind or fast-forward the tape — REW (rewind) MAN DISC FF (fast-forward)	To stop the tape and listen to the radio — TUNER FM/AM, FM MW/LW (XR-7202/7400 XR-7201)
To listen to the other side of the cassette — TAPE PLAY/DIR	To stop the tape and start the disc play — CD ▶II
To take out the cassette — ⏏	To play back the tape again — TAPE PLAY/DIR
	To stop the tape and turn off the unit — OFF

To select the tape type XR-7201/7400

Tape type	
CrO_2 (TYPE II) Metal (TYPE IV)	Press LOCAL/METAL once to engage the button.
Normal (TYPE I)	Press LOCAL/METAL twice to disengage the button.

To select the tape type XR-7202

Tape type	
CrO_2 (TYPE II) Metal (TYPE IV)	Press A.MEM/METAL once to engage the button.
Normal (TYPE I)	Press A. MEM/METAL to disengage the button.

Automatic Tuning

1 XR-7202 XR-7400 TUNER FM/AM XR-7201 FM MW/LW — Press to turn on the unit.

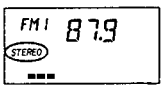
2 XR-7202 XR-7400 TUNER FM/AM XR-7201 FM MW/LW — Press to select the desired band, FM1, FM2, FM3 or AM (XR-7201: MW or LW)

3 SEEK AMS — Press to start scanning.
⏮ For lower frequencies
⏭ For higher frequencies
The scanning automatically stops when a station is tuned in.
Repeat this step until the desired station is tuned in.

4 LEVEL — Press to adjust the volume.

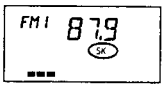
XR-7202:

When an FM stereo program of sufficient signal strength is tuned in



The program is received in stereo.

When a traffic information station is tuned in

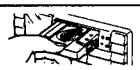


SK indicator appears on the display window.

XR-7201/7400:

Other Operations

To stop the radio and start tape playback

When no cassette is inserted	
When a cassette is inserted	TAPE PLAY/DIR

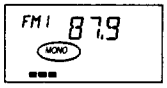
To stop the radio and...

To start disc play	CD ▶II
To turn off the unit	OFF

When the FM stereo program is too weak and noisy

Press MONO

The noise will be reduced. The sound will be monaural instead.

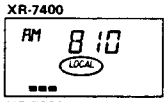


When there are too many stations and the scanning stops too frequently during automatic tuning

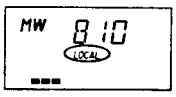
Press LOCAL METAL

Only the stations with comparatively strong signals can be tuned in.

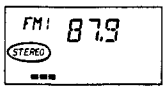
XR-7400



XR-7201



When an FM stereo program of sufficient signal strength is tuned in



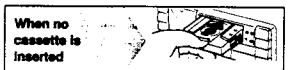
The program is automatically received in stereo.

Automatic Tuning

XR-7202:

Other Operations

To stop the radio and start tape playback

When no cassette is inserted	
When a cassette is already inserted	TAPE PLAY/DIR

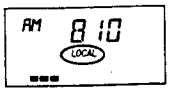
To stop the radio and...

To start disc play	CD ▶II
To turn off the unit	OFF

When there are too many stations and the scanning stops too frequently during automatic tuning

Press once SENS

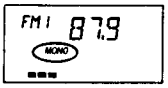
LOCAL appears on the display window. Only the stations with comparatively strong signals can be tuned in.



When the FM stereo program is too weak and noisy

Press twice SENS

MONO appears on the display window. The noise will be reduced. The sound will be monaural.



For your reference, the table below shows the function mode of SENS button.

	function mode
1 st. press	LOCAL
2 nd. press	MONO (LOCAL is canceled)
3 rd. press	Both are canceled

Manual Tuning

1 XR-7202 XR-7400: TUNER FM/AM XR-7201: FM MW/LW — **Press to turn on the unit.**

2 XR-7202 XR-7400: TUNER FM/AM XR-7201: FM MW/LW — **Press to select the desired band.**

3 MAN DISC (REW / FF) — **Press to select the desired station.**

REW For lower frequencies

FF For higher frequencies

To change the frequency rapidly, keep the button pressed.

4 LEVEL — **Press to adjust the volume.**

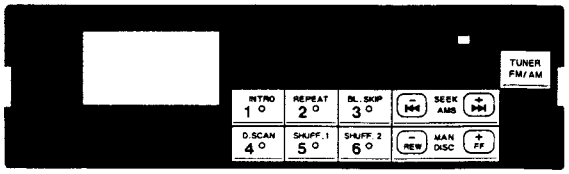
Warning
While driving, keep your eyes on the road and use the automatic tuning or the memory preset tuning!

Memory Preset Tuning

XR-7400:

You can memorize a total of 24 stations (6 stations for each band), one on each preset number.

Memorizing the Stations Automatically (Automatic Memory Function)



1 TUNER FM/AM — **Press to turn on the unit.**

2 TUNER FM/AM — **Press to select the desired band.**

3 M. SCAN / A. MEM — **Press for more than two seconds.**

The unit starts scanning the selected band and memorizes the tuned stations on the preset number buttons 1 through 6 automatically in the order of the stronger station.

Surveying What Is Being Broadcast on the Preset Stations

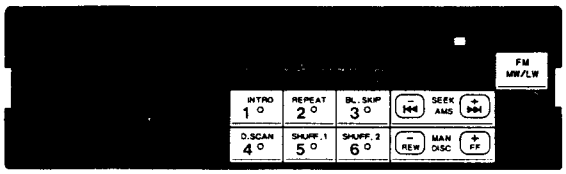
Press M. SCAN / A. MEM

Each memorized station will be scanned for five seconds in order. (When the broadcast of the memorized station is too weak, it cannot be received.)

Memory Preset Tuning

XR-7201:
You can memorize a total of 24 stations, one on each preset number. 6 stations for each FM band, and 6 stations in all for LW and MW (for example 2 stations for LW, 4 stations for MW etc.)

Memorizing the Stations Automatically (Automatic Memory Function)



1	FM MW/LW	Press to turn on the unit.
2	FM MW/LW	Press to select the desired band.
3	M. SCAN / A. MEM	**Press for more than two seconds.** The unit starts scanning the selected band and memorizes the tuned stations on the preset number buttons 1 through 6 automatically in the order of the stronger station.

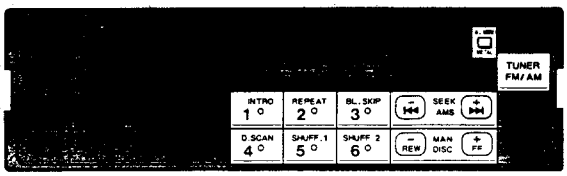
Surveying What is Being Broadcast on the Preset Stations

Press M. SCAN / A. MEM — Each memorized station will be scanned for five seconds in order. (When the broadcast of the memorized station is too weak, it cannot be received.)

Memory Preset Tuning

XR-7202:
You can memorize a total of 24 stations (6 stations for each band), one on each preset number.

Memorizing the Stations Automatically (Automatic Memory Function)



1	TUNER FM/AM	Press to turn on the unit.
2	TUNER FM/AM	Press to select the desired band.
3	A. MEM / METAL	**Press for more than two seconds.** The unit starts scanning the selected band and memorizes the tuned stations on the preset number 1 through 6 automatically in the order of the stronger station.

Memory Preset Tuning

Memorizing Only the Desired Stations Manually

Example: To memorize on the preset number 1

1	XR-7202 XR-7400: TUNER FM/AM / XR-7201: FM MW/LW	Press to turn on the unit.
2	XR-7202 XR-7400: TUNER FM/AM / XR-7201: FM MW/LW	Press to select the desired band.
3	SEEK AMS or MAN DISC (REW / FF)	Press to tune in the desired station.
4	INTRO 1 — FM 87.9 MEM 1 STEREO	**Press for more than two seconds.** The number of the pressed preset number button will be displayed. MEM indicator appears to show that the station has been memorized. (MEM indicator will disappear in a few seconds.)

Repeat these steps for each station.

To Receive the Preset Station

1	TUNER FM/AM	Press to select the desired band.
2	INTRO 1 ~ SHUFF. 2 6	Press lightly to receive the desired station.

Important
Every preset number button has only one memory for a band. The previously memorized station will be erased when you enter a new station of the same band on the same preset number button.

Disc Playing (When the optional CD auto changer is connected)

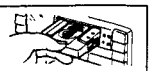
Before operating, insert a disc magazine with discs in it into CD auto changer.

1	CD ▶II	Press to start the disc play.
2	LEVEL	Press to adjust the volume.

Other Operations

To listen to another disc in the disc magazine	MAN DISC (REW / FF) (Press lightly)
To pause during play	CD ▶II
To start again	CD ▶II

To stop disc play and start tape playback

When no cassette is inserted	
When a cassette is inserted	TAPE PLAY/DIR

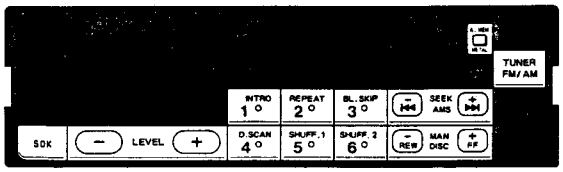
To stop disc play and...

To listen to the radio	FM MW/LW (XR-7201)	TUNER FM/AM (XR-7202/7400)
To turn off the unit	OFF	

Receiving Traffic Information System

XR-7202:

Searching for a Traffic Information Station



1	TUNER FM/AM	Press to turn on the unit.
2	TUNER FM/AM	Select FM1, FM2 or FM3.
3	SDK	**When the traffic information station is not being tuned in, press to start searching for a traffic information station.** SDK indicator will appear in the display window. When a station is tuned in, searching will stop, and SK indicator and the area code will appear.

While receiving a traffic information program
SDK indicator blinks.

To search for another traffic information station
Press SEEK (+ or –) while SDK indicator is displayed. The unit scans for a traffic information station and stops when a station is tuned in.

XR-7202:

Listening to Traffic Informations at the Preset Volume Level

1	LEVEL	**Adjust the volume to the desired level while SDK is displayed.**
2	A. MEM / METAL	**Press for more than two seconds.** With the beep sound, the volume level will get memorized.

A traffic information program is heard at the preset volume when it starts.

Memorizing Traffic Information Stations

Example: To memorize on the preset number 1

1	SEEK AMS / or / MAN DISC REW FF	**Press to tune in the desired traffic information station while SDK indicator is displayed.**
2	INTRO 1	**Press for more than two seconds.** With the beep sound, the station will be memorized.

To receive the preset traffic information station
Press the desired preset number button lightly while SDK indicator is displayed. The number of the pressed preset number button is displayed for five seconds in the display window, and then the area code is displayed.
When you press the preset number button on which the station was memorized without SDK mode, SDK indicator disappears.

XR-7202:

Receiving Traffic Information Program while Listening to a Tape or a Disc

During tape playback or disc play,

Press SDK — Playback continues, while the unit searches for a traffic information station internally.

When a station is found	SK indicator appears on the display window.
When a traffic information broadcast starts	The tape or CD playback stops temporarily, and the traffic information is heard (SDK indicator blinks on the display window).
When the traffic information is over	The tape or CD playback resumes from the point it has been suspended.

To change the display to the frequency indication during tape playback or disc play	DSPL
To stop receiving the traffic information program	SDK

When the frequency indication is displayed during tape playback
SEEK, MAN and preset number buttons function as in an ordinary radio reception.

If you are listening to a radio program
Only in case that you are listening to an FM program with SDK button pressed, the traffic information can be heard automatically when the broadcast starts. The stand-by function does not operate while listening to an AM program.

Locating the Beginning of a Desired Selection during Disc Playing (AMS Function)

To locate the beginning of the selection being played	Press
To locate a previous selection	Keep pressing Release the button at the desired selection.
To locate the next selection	Press
To locate a selection ahead	Keep pressing Release the button at the desired selection.

When the first selection or the last selection of the disc is located, the pay begins from the selection.

To search for a particular point in a selection (manual search)

To go ahead at high speed	keep FF pressed Release the button at the desired point.
To go back at high speed	keep REW pressed Release the button at the desired point.

The elapsed time of the selection is displayed during the manual search

Various Plays

To listen to the beginnings of the selections in order (Intro play)*

Press INTRO 1 — First ten seconds of each selection on every disc will be played in sequence from the next selection

To repeat the selection being played (Repeat play)

Press REPEAT 2 — The unit goes back to the beginning of the selection when the selection ends.

To search for the desired disc (Disc scan)

Press D.SCAN 4 — First ten seconds of the first selection on each disc will be played in sequence.

To play the selections on the disc in a random order (Shuffle play 1)*

Press SHUFF. 1 5 — All the selections on a disc being played will be played in a random order. After playing all the selections on the disc, the unit goes to the next disc.

To play the selections on all the discs in a random order (Shuffle play 2)*

Press SHUFF. 2 6 — All the selections on all the discs in the disc magazine will be played in a random order.

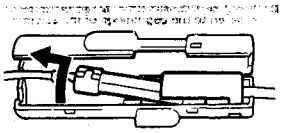
To resume normal playback
Press each button again.

*When you press the INTRO button during the shuffle play (1 or 2), the first ten seconds of all the selections will be played in a random order.

Maintenance

Fuse Replacement

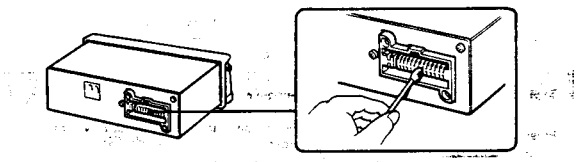
If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In this case, consult your nearest Sony dealer.



Warning
Use the specified ampere fuse for each lead. Use of a higher amperage fuse may cause serious damage.

Cleaning the Connector

To keep the best possible sound quality, clean the metalic part of the connector at the rear of the unit periodically using a commercially available head cleaning fluid or rubbing alcohol and a cotton swab.



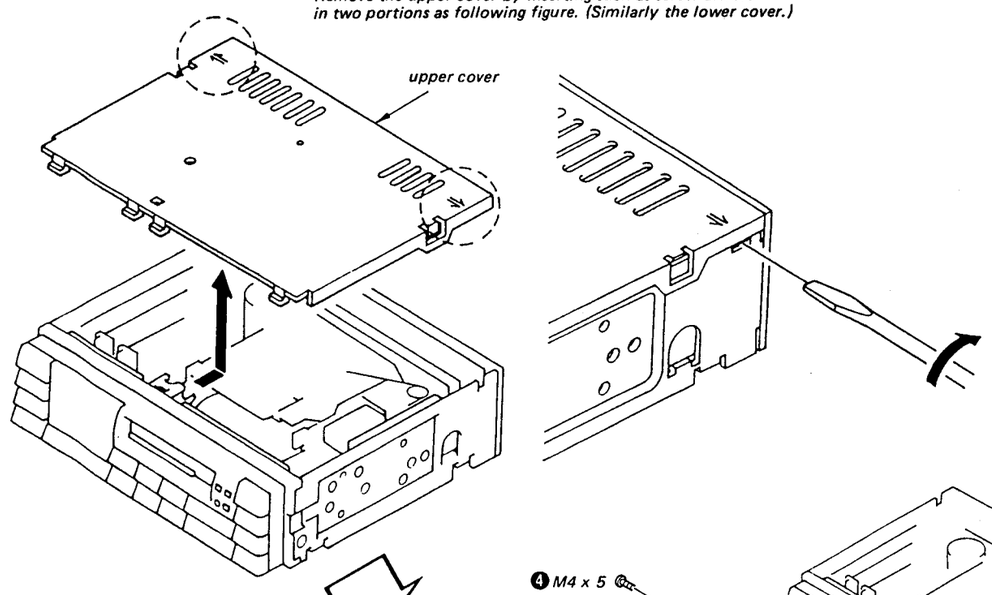
Cleaning the Head and Tape Path

Prolonged use may contaminate the tape head and the tape path. Contamination causes sound drop-outs in playback. Clean the tape head and tape path every two weeks to enjoy optimum hi-fi stereo sound. Use a commercially available cleaning cassette.

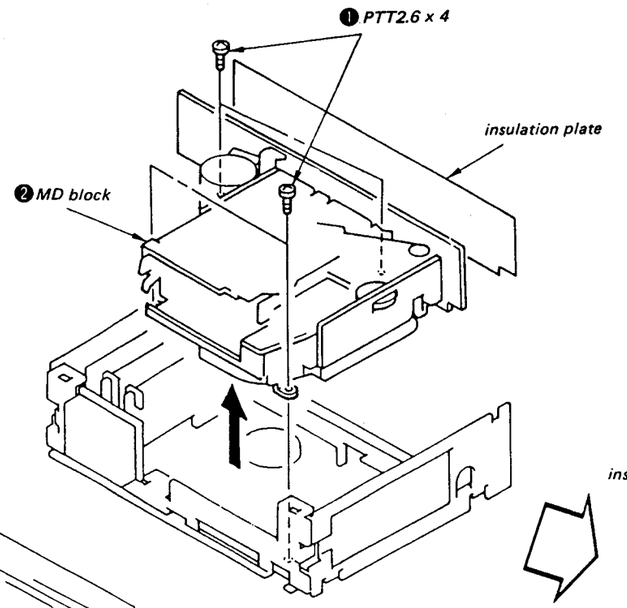
SECTION 2
DISASSEMBLY

COVER

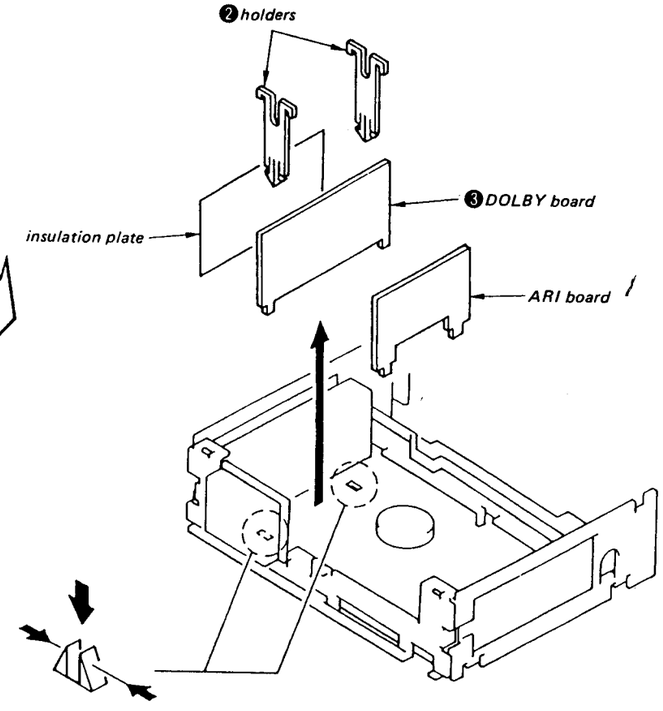
Remove the upper cover by inserting such as screw drivers in two portions as following figure. (Similarly the lower cover.)



MD BLOCK

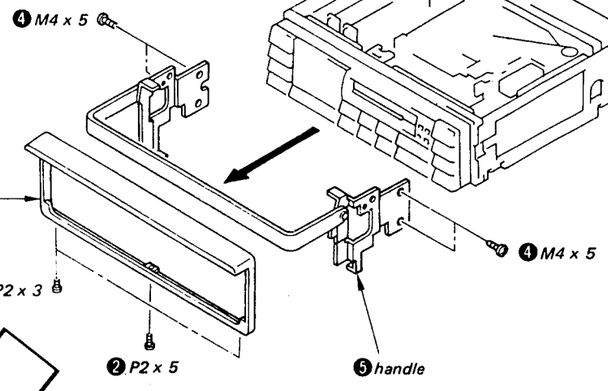


DOLBY BOARD

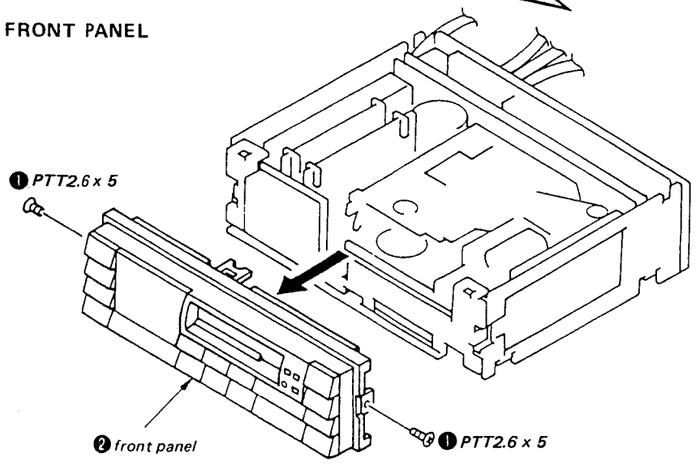


❶ *Remove the claw (two portions) on the bottom.*

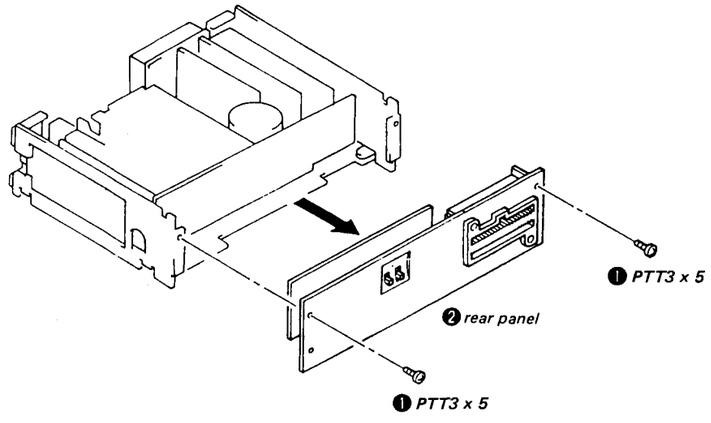
HANDLE



FRONT PANEL



REAR PANEL



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment:
   PB head — Pinch roller
   Idler — Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4 V).

Torque Measurement

Measure the torque at a supply voltage of 14.4 V DC.

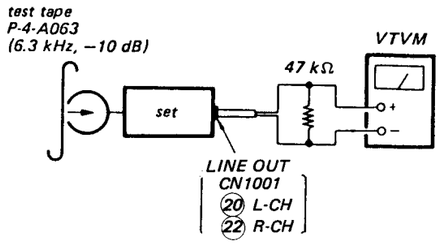
	Torque meter	Meter reading
FWD	CQ-102C	25 to 55 g·cm (0.35 to 0.77 oz·inch)
FF, REW	CQ-210B	55 to 150 g·cm (0.77 to 2.1 oz·inch)
Back tension	CQ-102C	1.5 to 4 g·cm or less (0.02 to 0.05 oz·inch or less)

3-2. ELECTRICAL ADJUSTMENTS DECK SECTION

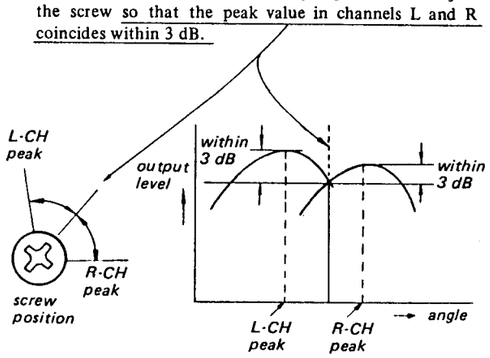
PB Head Vertical Adjustment

Proceudre:

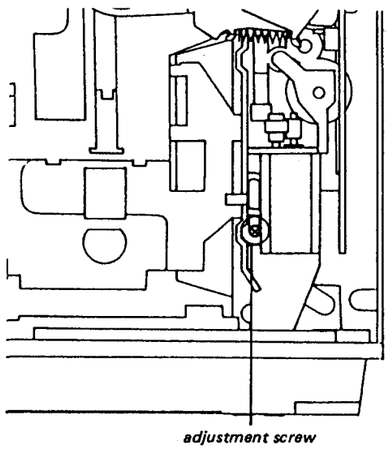
1. Put the set into the FWD PB mode.



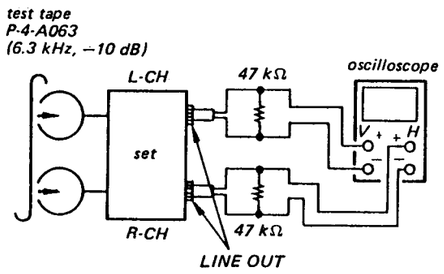
2. Turn the screw and check the output peak value. Adjust the screw so that the peak value in channels L and R coincides within 3 dB.

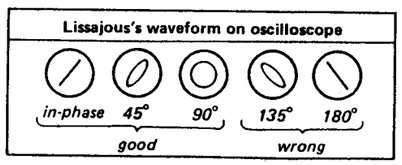


Adjustment Location:



3. Check the phase in the PB mode.



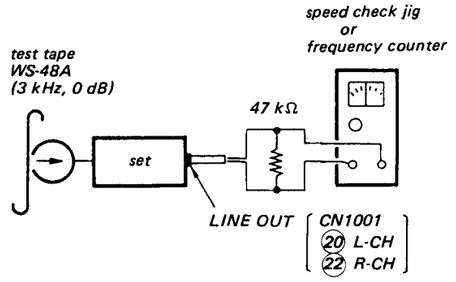


4. Repeat the above adjustment for the PB REV mode.

Capstan Motor Tape Speed Adjustment

Procedure:

1. Put the set into the FWD PB mode.

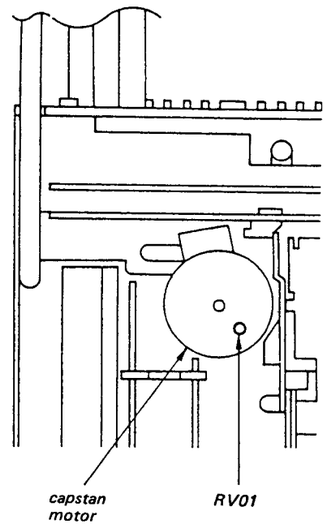


Specification: Constant speed

Speed check jig	Frequency counter
−1 to +2%	2,970 to 3,060 Hz

Adjust so that the frequency difference between the FWD and REV modes is within 1.5% (45 dB).

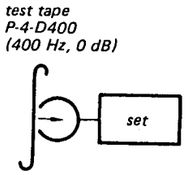
Adjustment Location: RV01



DOLBY NR Level Adjustment

Setting:

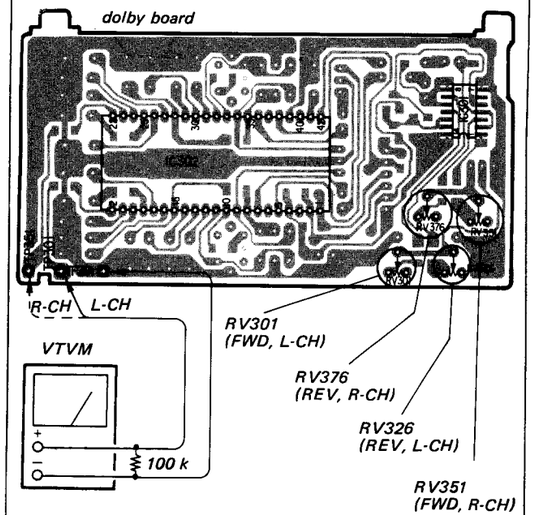
DOLBY NR switch: OFF
METAL switch: OFF



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV326 (L-CH) and RV376 (R-CH) so that VTVM reading is 0.245 V (−10 dB).
3. Put the set into the REV PB mode.
4. Adjust RV301 (L-CH) and RV351 (R-CH) so that VTVM reading is 0.245 V (−10 dB).

Adjustment Location: dolby board



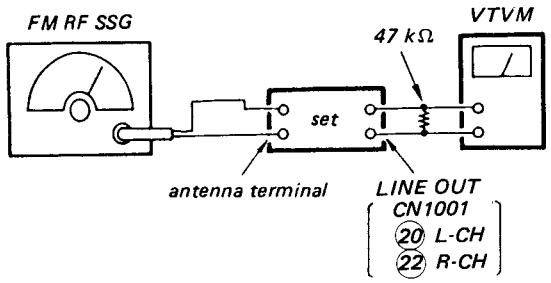
TUNER SECTION

Cautions during repair
When the front end is defective, replace it by a new one because its internal block is difficult to repair.

FM Stereo Separation Adjustment

Setting:
Band switch: FM
MONO switch: OFF (STEREO)

Procedure:



Carrier frequency: 98.0 MHz

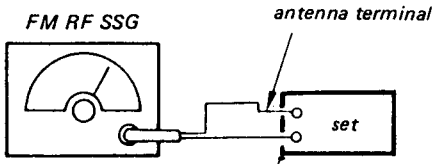
Output level: 3.2 mV (70 dB)
Mode: stereo
Modulation: main channel; 1 kHz, 33.75 kHz deviation (45%)
pilot signal; 19 kHz, 7.5 kHz deviation (10%)
subchannel; 1 kHz, 33.75 kHz deviation (45%)

FM stereo SSG output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	(A)
R-CH	L-CH	(B) Adjust RV101 so that VTVM reading is minimized.
R-CH	R-CH	(C)
L-CH	R-CH	(D) Adjust RV101 so that VTVM reading is minimized.

L-CH stereo separation: (A) – (B)
R-CH stereo separation: (C) – (D)
The separation in the two channels should be almost the same.

FM Auto Scan/Stop Level Adjustment

Setting:
Band switch: FM
MONO switch: ON
Frequency: 98.0 MHz



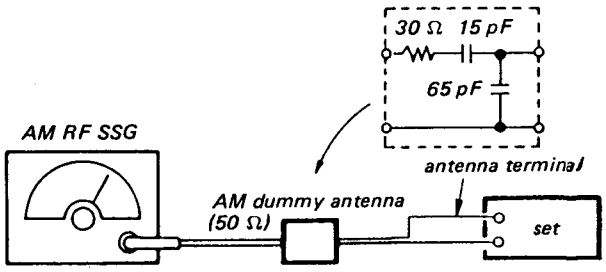
Carrier frequency: 98.0 MHz
Output level: 25 dB (18 μV)
Mode: mono, unmodulated

Procedure:
1. Tune in 98.0 MHz.
2. Adjust RV02 so that the VOM reading changes from low to high (5 V reference voltage).
3. When the FM RF SSG's output level is 25 ±4 dB check that the auto scan is stopped.

AM Auto Scan/Stop Level Adjustment

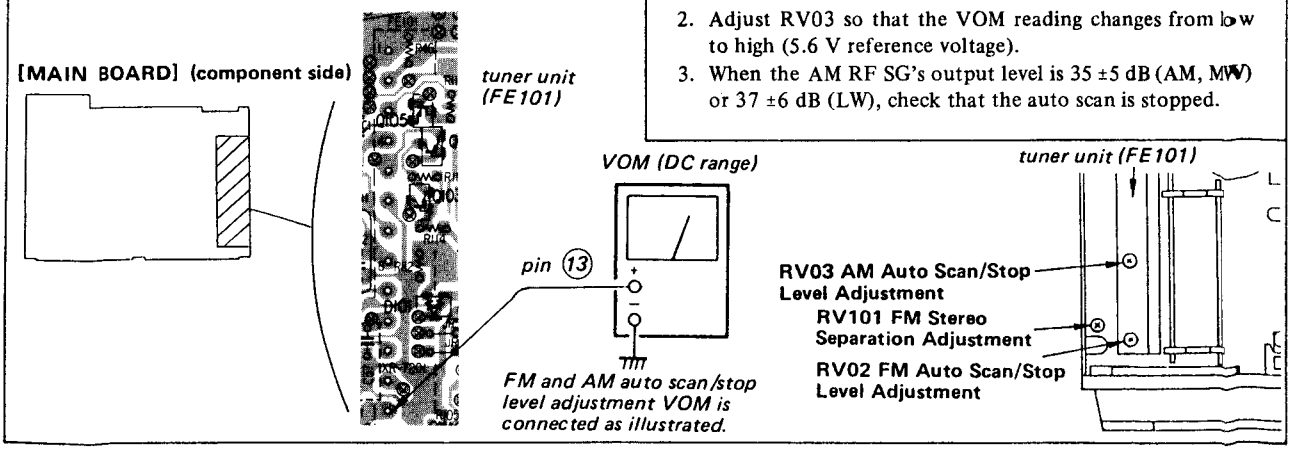
Note: This adjustment should be made after FM auto scan stop level adjustment is completed.

Setting:
Band switch } AM, MW . . . 999 kHz
Frequency } LW . . . . . 216 kHz



999 kHz,
35 dB (56 μV)
no modulation

Procedure:
1. Tune in 999 kHz.
2. Adjust RV03 so that the VOM reading changes from low to high (5.6 V reference voltage).
3. When the AM RF SG's output level is 35 ±5 dB (AM, MW) or 37 ±6 dB (LW), check that the auto scan is stopped.

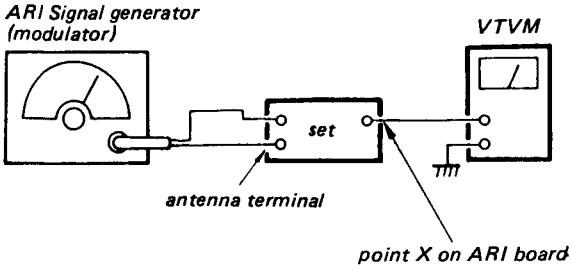

[MAIN BOARD] (component side)
tuner unit (FE101)
VOM (DC range)
pin (13)
FM and AM auto scan/stop level adjustment VOM is connected as illustrated.
tuner unit (FE101)
RV03 AM Auto Scan/Stop Level Adjustment
RV101 FM Stereo Separation Adjustment
RV02 FM Auto Scan/Stop Level Adjustment

ARI Level Adjustment

Setting:

Band switch: FM

Procedure:



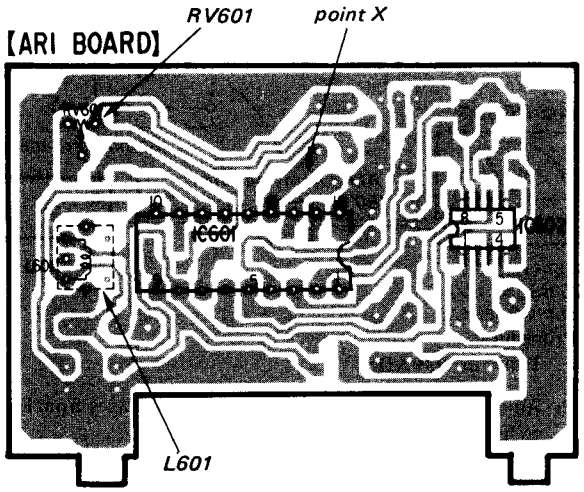
Frequency: Initial frequency
Modulation: ARI carrier only
Output level: 4 mVrms (composit)

Procedure:

1. Adjust L601 so that the level of 125 Hz signal becomes maximum.
2. Adjust RV601 in the same way.

Specification: 1 Vrms or more

Adjustment Location: ARI board conductor side view



SECTION 4
DIAGRAMS

【IC2 (μPD75112GF-524-3BE), IC701 (μPD7508HG-609-22) DESCRIPTION】

The μPD75112GF-524-3BE and μPD7508HG-609-22 functions are described below.

1. IC2

a. Description

Pin No.	Name	I/O	Description
1	DAT O	O	DATA output terminal to external RAM. Goes low during ACC OFF and ALL OFF. Low is output when there is no initial diode MNOS.
2	RAM ON	O	External RAM's power switching output terminal. Power is tured on for low output and turned OFF for high output. Low is output when there is no initial diode MNOS.
3	CE (PLL)	O	CE output terminal to PLL IC. Used as a LATCH signal to send data to PLL IC. Goes low during ACC OFF and ALL OFF or in modes other than TUNER.
4	CLK O (PLL/LCD)	O	Clock output terminal to PLL IC and LCD driver IC. Goes low during ACC OFF and ALL OFF (display OFF).
5	DAT O (PLL/LCD)	O	Clock output terminal to PLL IC and LCD driver IC. Goes low during ACC OFF and ALL OFF (display OFF).
6	CE (VOL)	O	CE output terminal to VOL IC. Used as a LATCH signal to send data to VOL IC. Goes low during ACC OFF and ALL OFF.
7	RESET	I	Reset input terminal. Microcomputer can be reset and started by changing the level from low to high. A high signal is input during normal operation.
8	×2	—	System clock oscillation connection terminal. Connected at 4.19 MHz.
9	×1	I	System clock oscillation connection terminal. Connected at 4.19 MHz.
10	CE (LCD)	O	CE output terminal to LCD driver IC. Used as a LATCH signal to send data to LCD IC. Goes low during ACC OFF and ALL OFF (display OFF).
11	INH (LCD)	O	INH output terminal to LCD driver IC. When high is output, ON is displayed. When low is output, OFF is displayed. Goes low during ACC OFF and ALL OFF (display OFF).
12	CLK O (VOL) /TEST	I/O	Clock output terminal to VOL IC. Goes low during ACC OFF and ALL OFF. During initialization, high is input using a TEST input connector, and initial data is written to the external RAM. Low is input during normal operation. Used as a clock output signal to VOL IC.
13	DAT O (VOL)	O	Data output terminal to VOL IC. Goes low during ACC OFF and ALL OFF.
14	KO7	O	KEY SCAN output terminal.
15	KO6	O	KEY SCAN output terminal.
16	KO5	O	KEY SCAN output terminal.
17	KO4	O	KEY SCAN output terminal.
18	KO3	O	KEY SCAN output terminal.
19	KO2	O	KEY SCAN output terminal.
20	KO1	O	KEY SCAN output terminal.
21	KO0	O	KEY SCAN output terminal.
22	KI3	I	KEY SCAN input terminal.
23	KI2	I	KEY SCAN input terminal.
24	KI1	I	KEY SCAN input terminal.
25	KI0	I	KEY SCAN input terminal.

Pin No.	Name	I/O	Description
26	Vss	I	GND
27	ACC CHECK	I	Accessory input terminal. High : ACC ON, Low : ACC OFF
28	SK	I	SK signal input terminal. (Provided only for XR-7202)
29	SD	I	SD signal input terminal. Tuning can be done at high level but not at low level.
30	DK	I	DK signal input terminal. (Provided only for XR-7202)
31	STEREO	I	STEREO signal input terminal. A STEREO signal is input for high level, and a MONO signal for low level.
32	CD CHECK	I	CD changer check input terminal. CD changer exists for high level, and does not exist for low level.
33	(METAL)	—	METAL input terminal (unused and opened).
34	TAPE ON	I	TAPE ON input terminal from TAPE control microcomputer. Goes high during tape operation and goes low when tape stops.
35	(ILL)	—	Illumination input terminal (unused and opened).
36	REMOTE IN	I	Remote in (AUX) input terminal. AUX mode is entered when low is input with ACC ON.
37	DAT O (TAPE/CD)	O	DATA output terminal to TAPE control microcomputer and CD changer (key data is output). Low is output except during data transfer.
38	CLK O (TAPE/CD)	O	Clock output terminal to TAPE control microcomputer and CD changer. Low is output except during data transfer.
39	DISPSEL	O	DISPSEL output terminal to TAPE control microcomputer and CD changer. A square wave (15.6 msec period is output when the TUNER, TAPE, or CD mode is set during power ON. The TAPE control microcomputer detects the timing for sending the display data at the leading edge. The CD changer detects the timing at the trailing edge.
40	BEEP	O	BEEP output terminal. A square wave of approx. 2 kHz is output when a key acknowledge beep or alarm sounds.
41	DAT IN (TAPE/CD)	I	DATA input terminal from TAPE control microcomputer and CD changer.
42	NC	—	
43	CLK IN (TAPE/CD)	I	Clock input terminal from TAPE control microcomputer and CD changer.
44	BK	I	BK input terminal. (Provided only for XR-7202)
45	AMP ON	O	Amplifier output terminal. High : AMP ON, Low : AMP OFF
46	METAL	O	METAL output terminal. When a METAL signal is output in TAPE mode, high is output. When no METAL signal is output, low is output. High is output during ACC OFF and ACC OFF or in modes other than TAPE.
47	MONO	O	MONO output terminal. When an FM MONO signal is output in TUNER mode, high is output. When signals other than FM MONO are output, low is output.
48	MUTE	O	AUDIO MUTE output terminal. Used as a mute circuit control signal. A MUTE ON signal is sent when this is high, and a MUTE OFF signal when this is low. Goes low after eight seconds during ACC OFF and ALL OFF. The AMP ON output also goes low.

Pin No.	Name	I/O	Description
49	DOLBY B/C	O	DOLBY B/C switching output terminal. Valid when the DOLBY ON/OFF signal is low. Set to DOLBY B when the signal is high, and set to DOLBY C when it is Low. High is output during AMS, ACC OFF, and ALL OFF in TAPE mode and in modes other than TAPE.
50	DOLBY ON/OFF	O	DOLBY switching output terminal. DOLBY is on for low and off for high. High is output during AMS, ACC OFF and ALL OFF in TAPE mode and in modes other than TAPE.
51	CD	O	CD mode select output terminal. Goes high in CD mode and goes low in modes other than CD. Goes low during ACC OFF.
52	POWER	O	POWER ON output terminal. Goes high in TUNER, TAPE, and CD modes and goes low during ACC OFF. Also used as a remote output port.
53	DIMER select ON/OFF	O	DIMER ON/OFF select output terminal. The DIMER signal can be selected for high and cannot be selected for low. Goes high during ACC OFF and ALL OFF.
54	LW	O	LW select output terminal. Low is output during tuner LW band or TV receiving (for Japanese FM). High is output in modes other than TUNER or during ACC OFF. (Provided only for XR-7201)
55	AM	O	AM select output terminal. Low is output for tuner AM (MW) band. Goes high in modes other than TUNER or during ACC OFF.
56	FM	O	FM select output terminal. Low is output for tuner FM band. Goes high in modes other than TUNER or during ACC OFF.
57	NC	—	
58	BACKUP 5V	I	Positive power supply terminal. A backup power of approx. 5V is supplied.
59	CD MUTE	I	MUTE input terminal from CD change.
60	TAPE MUTE	I	MUTE input terminal from TAPE control microcomputer.
61	BUSY (RAM)	I	BUSY input terminal from external RAM.
62	DATA IN (RAM)	I	DATA input terminal from external RAM.
63	CE (RAM)	O	CE output terminal to external RAM. Used as a LATCH signal to send data.
64	CLKO (RAM)	O	CLOCK output terminal to external RAM. When there is no RAM indicated by initial diode MNOS, a CE signal is also output for low.

b. Key Matrix

• Matrix Diagram

O \ I	KI0	KI1	KI2	KI3	
KO2	TUNER/BAND	ALL OFF	CD PLAY/PAUSE	TAPE PLAY/DIR	Momentary Key
KO3	EJECT	DOLBY/MONO (ARI : DISPLAY)	MANU − DISC − REW	MANU + DISC + FF	
KO4	③ B.SKIP	MEM. SCAN AUTO. MEM (ARI : SENS/DOLBY)	SEEK + AMS + FF AMS	SEEK − AMS − REW AMS	
KO5	MUTE (ARI : SDK)	LOUD	LEVEL −	⑤ SHUFFLE1	
KO6	④ DISC. SCAN	② REPEAT	LEVEL +	SELECT	
KO7	METAL/LOCAL (ARI : A.MEM/METAL)	① INTRO	⑥ SHUFFLE2	——	
KO0	DOLBY B/C	MNOS memory	REMIN VOL	PRESET ONLY	Initial diode (for initializing)
KO1	A0	A1	A2	A3	

• Initial Diode (for initializing)

	No diode	Diode
DOLBY B/C	DOLBY B, C	DOLBY B only
MNOS memory	No memory	Memory
REMIN VOL	AUX mode : SELECT, LOUD MUTE, LEVEL+ LEVEL : Valid	AUX mode : SELECT, LOUD MUTE, LEVEL+ LEVEL : Invalid
PRESET ONLY	① − ⑥ Ok in modes other than PRESET	① − ⑥ Only in PRESET

	A1 A0 0 0	0 1	1 0	1 1
A3 A2 0 0	J + TV		AEP ARI	
0 1	※USA2	※USA2	※USA1	※USA1
1 0	※E1	※E1	※E2	※E2
1 1	※AEP L3	※AEP L2	※AEP ARI L3	※AEP ARI L2

0 ··· No diode
1 ··· Diode

※E1 : AM 9 kHz step
E2 : AM 10 kHz step

※USA1 : AM 530 − 1,620 kHz
USA2 : AM 530 − 1,710 kHz

※L2 : LW 153 − 281 kHz
L3 : LW 153 − 279 kHz

2. IC701 Description

a. Description

Pin No.	Name	I/O	Description
1	KSI0	I	Key scanning input port.
2	KSI1	I	Key scanning input port.
3	KSI2	I	Key scanning input port.
4	KSI3	I	Key scanning input port.
5	(B. SKIP)	—	High output in BLANK SKIP mode (unused and opened).
6	(REPEAT)	—	High output in REPEAT mode (unused and opened).
7	(INTRO)	—	High output in INTRO scanning mode (unused and opened).
8	AMS	O	High output during AMS operation.
9	TEST	O	Test mode.
10	(REW)	O	High output in REW mode (unused and opened).
11	(NC)	—	
12	(NC)	—	
13	N/R	O	High output in REVERSE mode.
14	MUTE	O	MUTE ON when a high signal is output.
15	RESET	I	Reset by high level and started from program address 0 by low level.
16	CLOCK1	—	System clock oscillator connection terminal.
17	V_{DD}	—	Positive power supply terminal.
18	CLOCK2	—	System clock oscillator connection terminal.
19	GND	—	External interrupt input (active) at leading edge (connected to GND).
20	ACC CHECK	I	ACC ON at high input. ACC OFF at low input.
21	CLK IN	I	Serial clock input from master microcomputer.
22	(SO)	—	(unused and opened.)
23	(NC)	—	
24	DATA IN	I	Serial clock input from master microcomputer.
25	CLK OUT	O	Serial transfer clock output to master microcomputer.
26	DATA OUT	O	Serial transfer data output to master microcomputer.
27	(BEEP)	—	BEEP ON at High output (unused and opened).
28	TAPE ON	O	High output during tape operation.
29	DSPSEL	I	Serial transfer timing signal from master microcomputer. (A square wave (32 msec period) is input and can be sent at the leading edge.)
30	REEL2	I	Input to detect the take-up reel table operation in normal REW mode.
31	REEL1	I	Input to detect the take-up reel table operation in normal FWD mode.
32	AMS IN	I	Sound detection input. (High : Sound)
33	CAP M	O	Capstan motor drive output. (Capstan motor is turned on when high is output.)
34	PL	O	Plunger drive output. (Plunger is turned on when high is output and released when low is output.)

Pin No.	Name	I/O	Description
35	LM−	O	Loading motor drive output. (Loading motor is turned on when high is output and released when low is output.) LM+ \ LM−: High / Low High: Braked / Forward Low: Reverse / Stopped Note : For forward rotation, the loading motor is activated in the PLAY direction.
36	LM+	O	
37	Vss	—	Connected to GND.
38	(EVENT)	—	(Unused and connected to GND.)
39	(ϕ OUT)	—	(Unused and Opened.)
40	(KSO0)	—	Key scanning output port (unused and Opened).
41	(KSO1)	—	Key scanning output port (unused and Opened).
42	KSO2	O	Key scanning output port.
43	KSO3	O	Key scanning output port.
44	(NC)	—	

b. Key Matrix

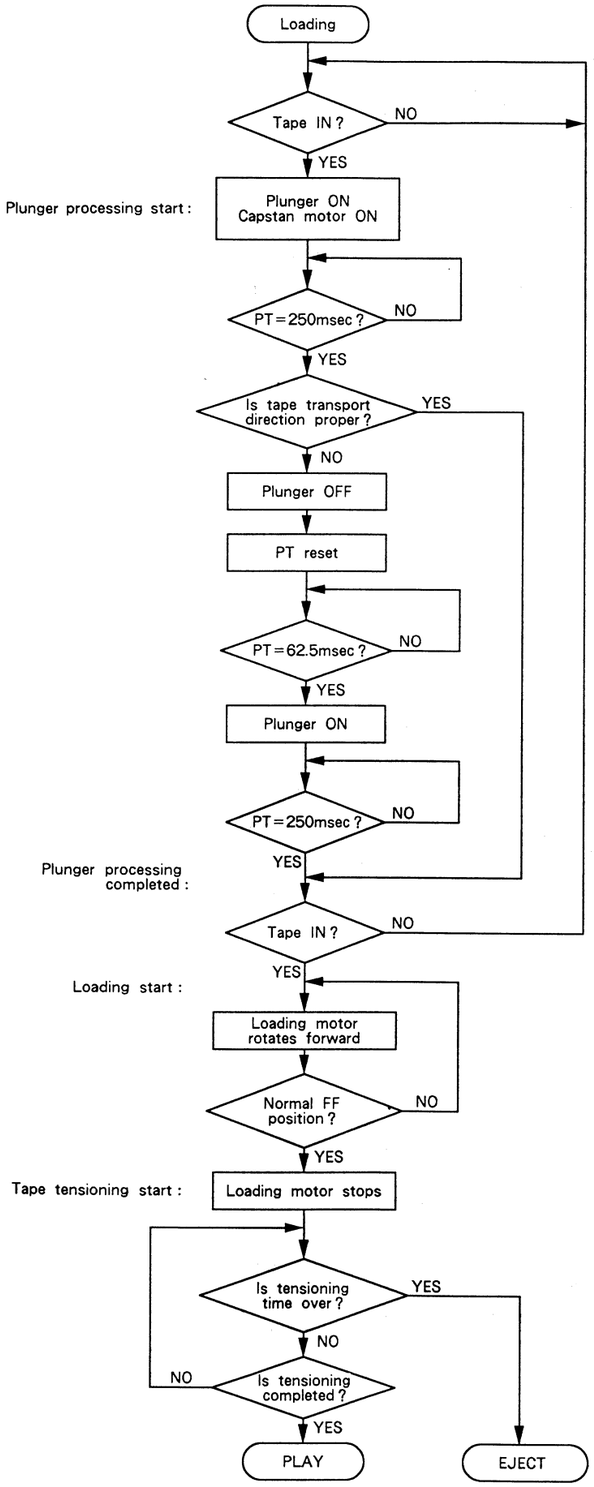
Output \ Input	KSI0	KSI1	KSI2	KSI3
KSO0	PLAY/DIR	STOP/EJECT	AMS FF/FF	AMS REW/REW
KSO1	B. SKIP	REPEAT	INTRO	——
KSO2	TAPE IN	REMOTE IN	N/R	EJECT/RELEASE
KSO3*	STOP	FF	REW	PLAY

* The input corresponding to KSO3 indicates the mode position shown in the table below.

STOP	FF	REW	PLAY	
I	O	O	O	STOP (EJECT) position
I	I	O	O	Intermediate position between STOP and FF
O	I	O	O	Normal FF position
O	I	I	O	Intermediate position between FF and REW
O	O	I	O	Normal REW position
O	O	I	I	Intermediate position between REW and PLAY
O	O	O	I	PLAY position

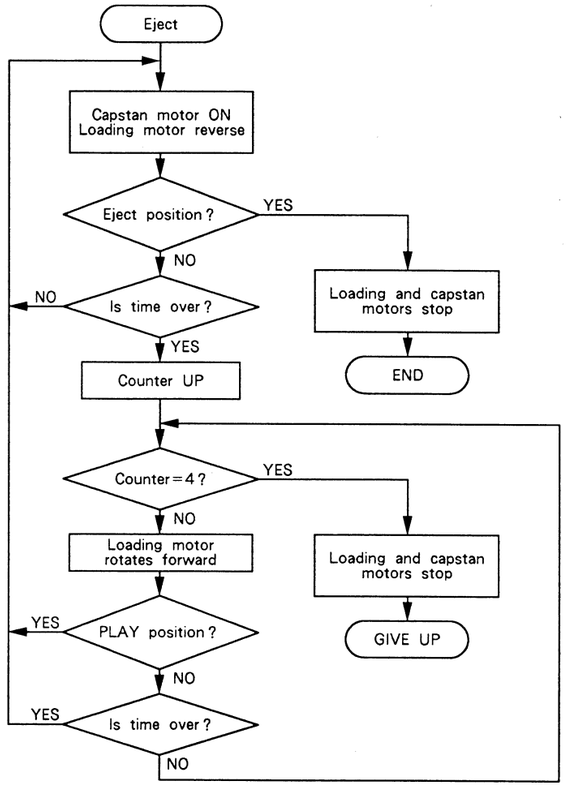
C. Flow Chart

• Loading



Note : PT stands for plunger timer.

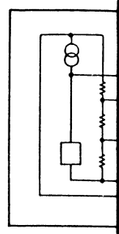
• Eject



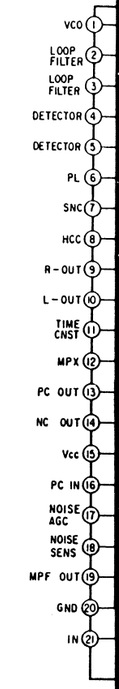
Note : The timer described above indicates the time in the STOP position or each intermediate position. The timer in the STOP position. The timer in the STOP position is set for 5 sec, and that in other positions for 2 sec.

• IC BLOC

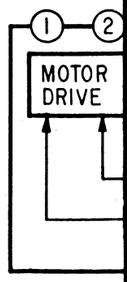
IC4 S-8054



IC101 STK



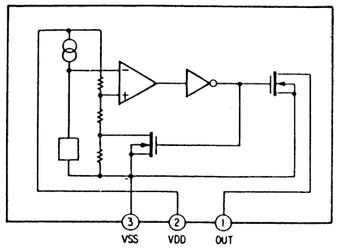
IC704 M545



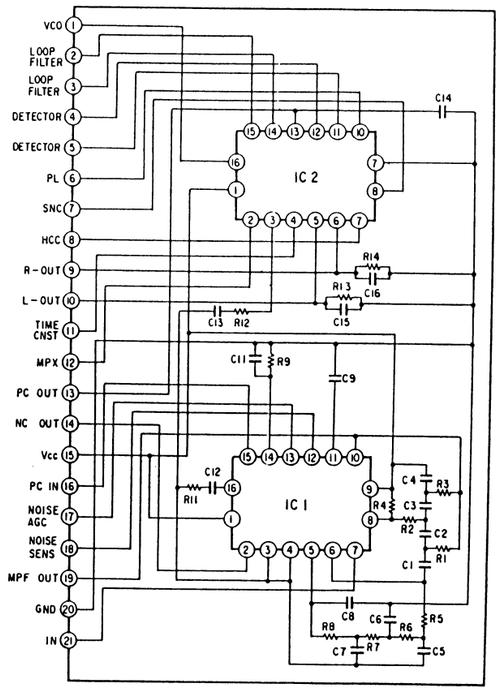
OP position or each intermediate position.
position is set for 5 sec, and that in other

• IC BLOCK DIAGRAMS

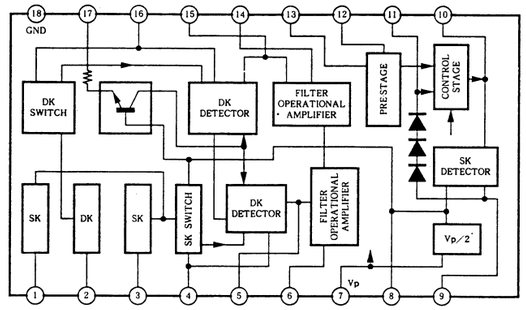
IC4 S-8054HN



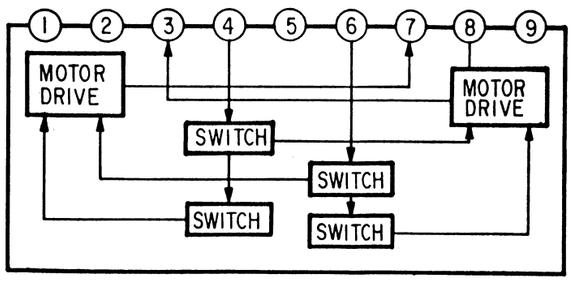
IC101 STK3400



IC601 TDA1579



IC704 M54543L



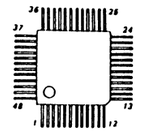
Note on Main Display Block Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : nonflammable resistor.
- : B+ Line
- : adjustment for repair.*
- Total current is measured with no cassette installed.*
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.*
  no mark : FM or PB
  ( ) : AM
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.*
  ⇨ : FM ⇨ : PB

*: Indicated by the color red.

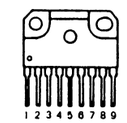
• SEMICONDUCTOR LEA

LC7573AN



NMX3

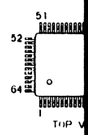
M54543L



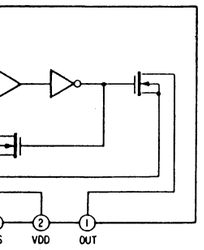
S-8054H

μPD7508H

μPD75112



DIAGRAMS



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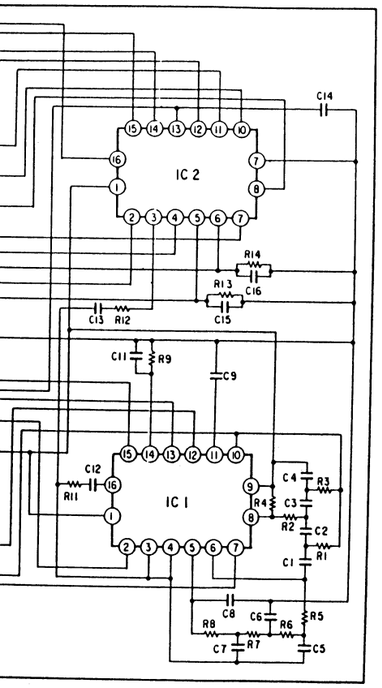
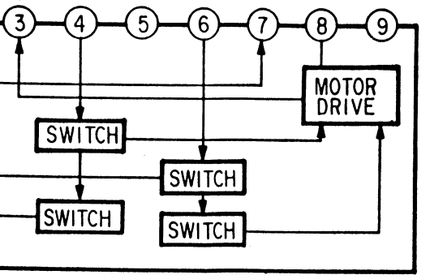
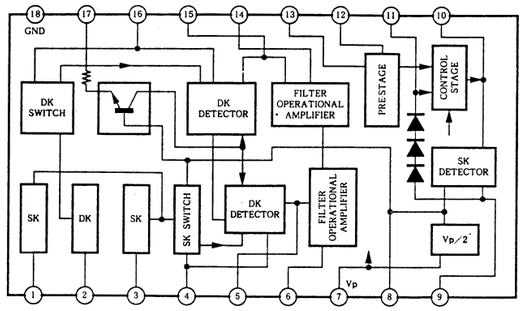




IC601 TDA1579



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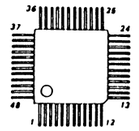
  ( ) : AM
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.*
  ⇨ : FM ⇦ : PB

*: Indicated by the color red.

• SEMICONDUCTOR LEAD LAYOUTS

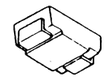
LC7573AN



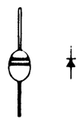
NMX3S900

2SA1344

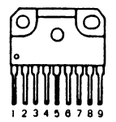
LN1451C



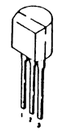
V09G



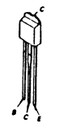
M54543L



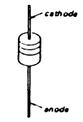
S-8054HN-CB



2SB1203-S



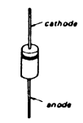
RD11ES-B1
RD4.3ES-B1
RD4.7ES-B1
RD5.1ES-B1
RD5.6ES-B1
RD6.8ES-B1
RD6.8ES-B3
RD7.5ES-B2
RD8.2ES-B3
RD9.1ES-B3
1SS119



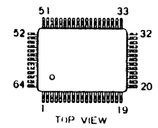
μPD7508HG-609-22

2SD1020-F

RD9.1E-B2
10E2

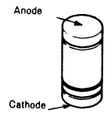


μPD75112GF-524-3BE

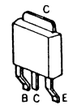


2SD1682-S

RLS-4148



2SD1802FA



4-1. PRINTED WIRING BOARDS

• **See page 25 for Semiconductor Lead Layouts.**

Note

- ○—— : parts extracted from the component side.
- ⊗ : Through hole.
- ▒▒ : Pattern on the side which is seen.
- ▒▒ : Pattern of the rear side.
- □ : Chip components extracted from the rear side.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	I-14	D808	B-5	Q1	H-13
D2	H-13	D809	A-5	Q2	I-13
D4	I-12	D810	B-4	Q4	G-13
D5	I-12	D811	B-4	Q5	G-14
D6	I-12	D812	A-4	Q6	G-14
D7	I-12	D813	B-3	Q7	J-13
D8	I-12	D814	A-3	Q8	I-13
D9	I-12	D815	B-3	Q9	G-13
D10	I-12	D816	B-3	Q10	G-13
D14	I-12	D817	A-3	Q11	H-11
D16	H-12	D818	B-2	Q12	F-12
D17	F-11	D819	A-2	Q14	E-12
D18	E-13	D820	B-2	Q15	E-14
D19	E-15	D821	A-2	Q16	I-10
D20	F-13	D822	C-1	Q17	I-10
D21	F-13	D823	B-1	Q18	E-13
D22	F-13	D824	B-1	Q19	E-13
D23	F-13	D825	A-1	Q20	G-13
D24	F-13	D901	B-24	Q21	E-9
D25	F-13	D902	B-24	Q22	G-4
D26	F-13	D905	A-25	Q23	G-4
D27	F-13	D906	A-23	Q24	I-10
D28	F-13			Q101	I-15
D29	F-13	IC1	H-14	Q102	G-15
D30	E-14	IC2	I-11	Q103	G-15
D31	H-11	IC3	I-10	Q104	G-14
D32	F-12	IC4	G-12	Q105	G-15
D33	E-10	IC101	H-15	Q391	H-19
D34	G-14	IC201	H-9	Q392	I-19
D60	G-13	IC202	F-11	Q401	G-11
D101	H-15	IC301	H-19	Q701	F-22
D102	I-14	IC302	I-17	Q702	F-22
D201	F-11	IC401	G-11	Q703	E-19
D202	G-8	IC402	G-9	Q704	F-19
D401	F-9	IC403	G-7	Q705	F-19
D451	E-11	IC404	F-9	Q706	F-19
D601	C-4	IC405	F-10	Q707	E-18
D701	F-22	IC601	C-4	Q708	F-17
D702	F-22	IC602	C-5	Q709	E-17
D703	F-22	IC701	F-21	Q850	B-21
D704	F-22	IC702	F-22	Q860	B-21
D705	F-20	IC703	F-18	Q901	B-24
D706	F-20	IC704	F-19	Q902	B-24
D707	F-18	IC901	B-22	Q903	B-24
D708	F-17			Q910	A-24
D709	F-17			Q913	B-25
D710	F-17			Q914	B-24
D711	F-20			Q915	B-24
D801	C-8			Q916	A-23
D802	B-8			Q950	B-21
D803	B-8			Q951	B-23
D804	A-8			Q960	B-21
D805	A-7				
D806	A-6				
D807	A-6				

【DISPLAY BOARD】(COMPONENT SIDE)

Chip parts only.

XR-7202

【ARI BOARD】

【MAIN BOARD】(COMPONENT SIDE)

Chip parts only.

XR-7202 S804 SDK

【DISPLAY BOARD】(CONDUCTOR SIDE)

XR-7201 XR-7400

【MAIN BOARD】(CONDUCTOR SIDE)

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

parts only.

XR-7202 S804 SDK

【DISPLAY BOARD】(CONDUCTOR SIDE)

XR-7201 XR-7400

D SCAN 4 | SHUFF 1 5 | SHUFF 2 6 | − REW | MAN DISC | + FF | TAPE PLAY/DIR

INTRO 1 | REPEAT 2 | BL SKIP 3 | − SEEK AMS | + | CD ▶II | TUNER FM/AM | FM MW/LW | ⏏ | II

XR-7201,7400

XR-7202 S815 SENS | S817 A.MEM METAL | S818 DSPL

XR-7201,7400 M.SCAN A.MEM | LOCAL METAL

XR-7202

S2 POWER

BLU

RED

【MAIN BOARD】(CONDUCTOR SIDE)

CNP3

XR-7201 XR-7400

XR-7202

ANT

CHASSIS

ANT

FRONT L WHT BLK R RED

REAR L WHT BLK R RED

B UP 3.15A YEL

GND BLK

ACC RED

AMP REM BLU

ILLUM ORG

ANT REM BLU

SUB.W L WHT BLK R RED

CDX-A20 INPUT

【SUB WOOFER BOARD】

CN1001

【MECH CONTROL BOARD】

SHIELD PLATE

【SWITCH BOA

M901 MOTOR

RED

BLU

【DOLBY BOARD】

IC302

LCD DISPLAY UNIT

FM MW MEM

METAL DOLBY B DISC DOLBY C TRACK

STEREO MONO LOCAL LOUD SK

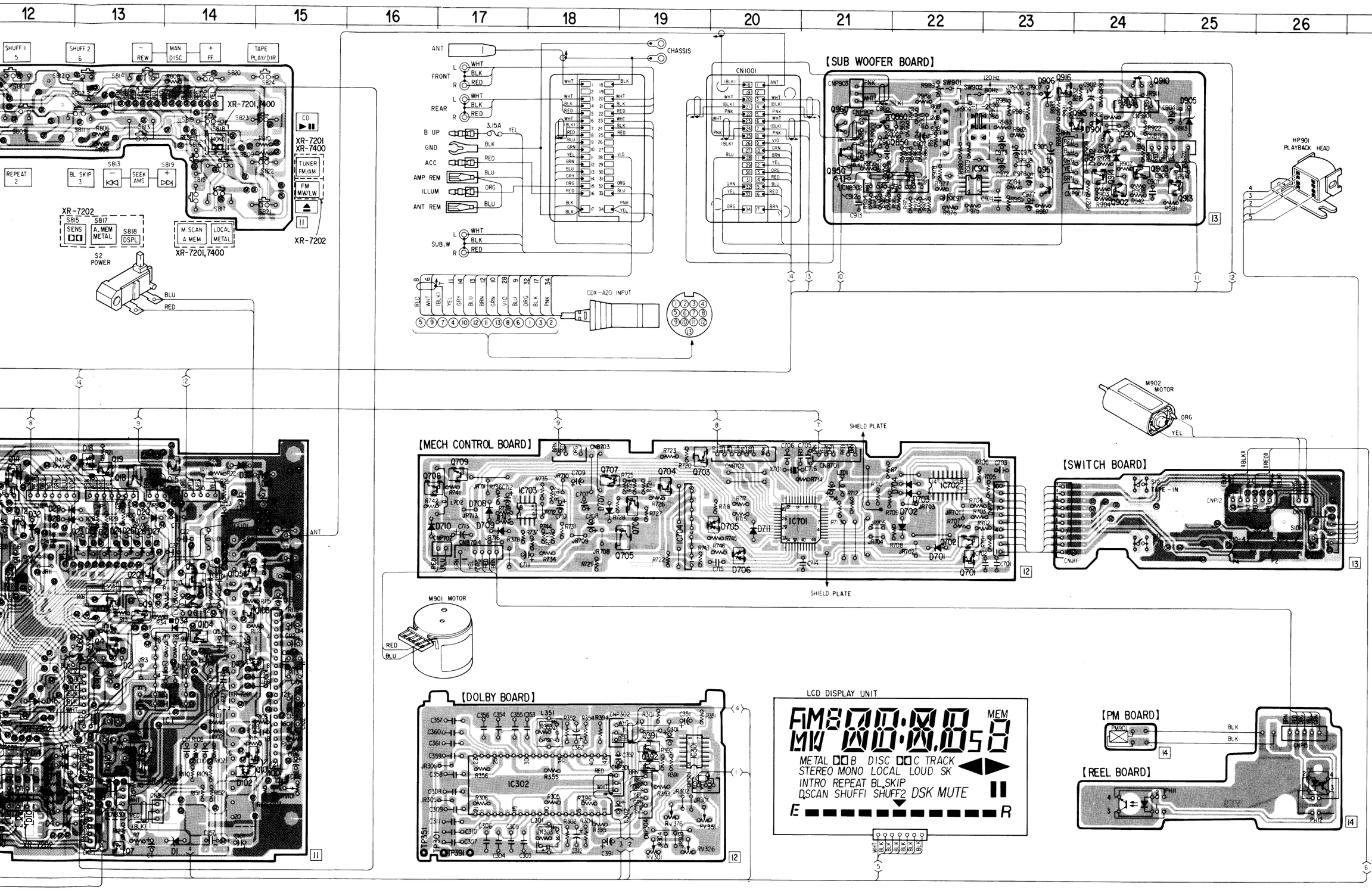
INTRO REPEAT BL.SKIP

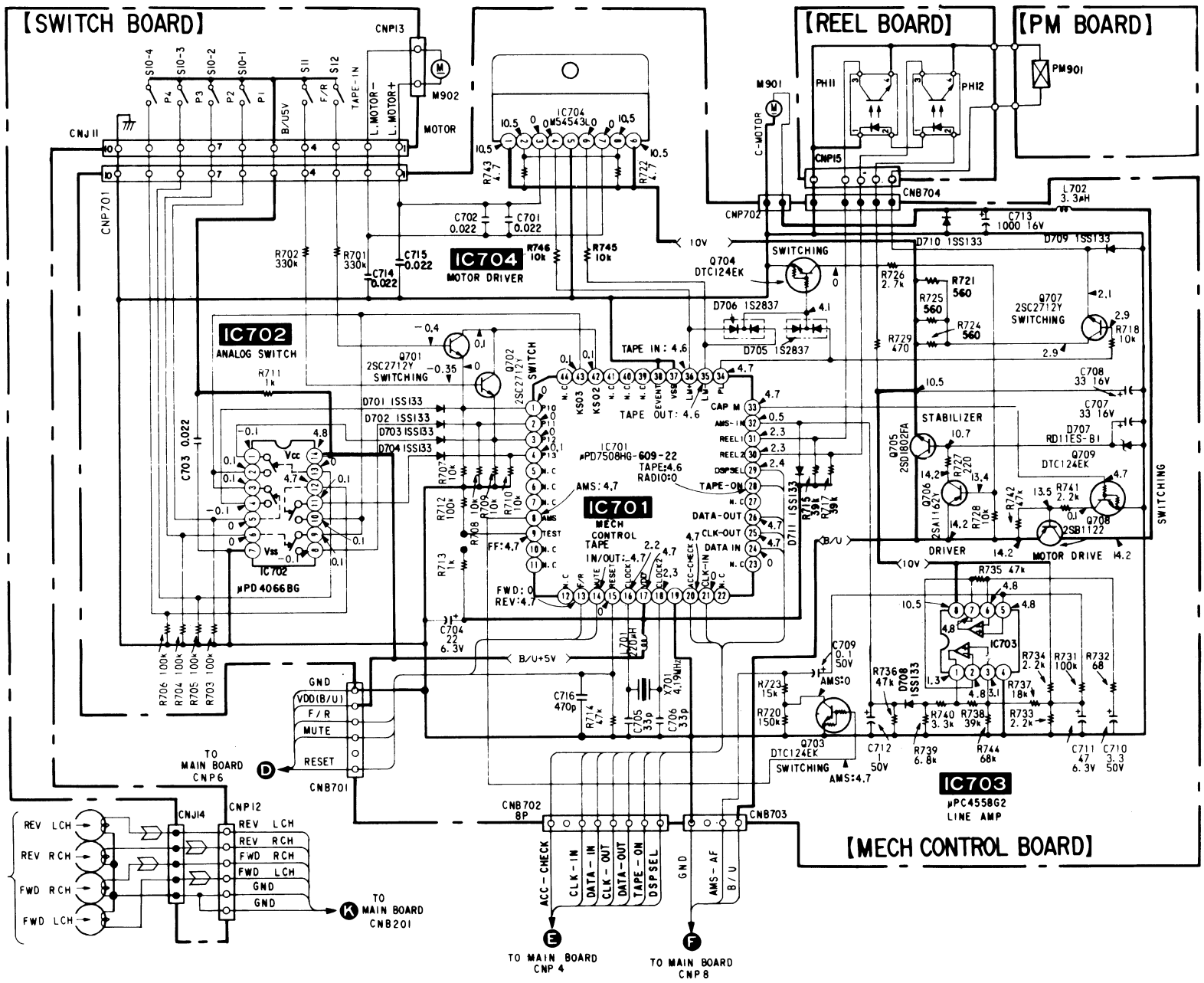
D.SCAN SHUFF1 SHUFF2 DSK MUTE

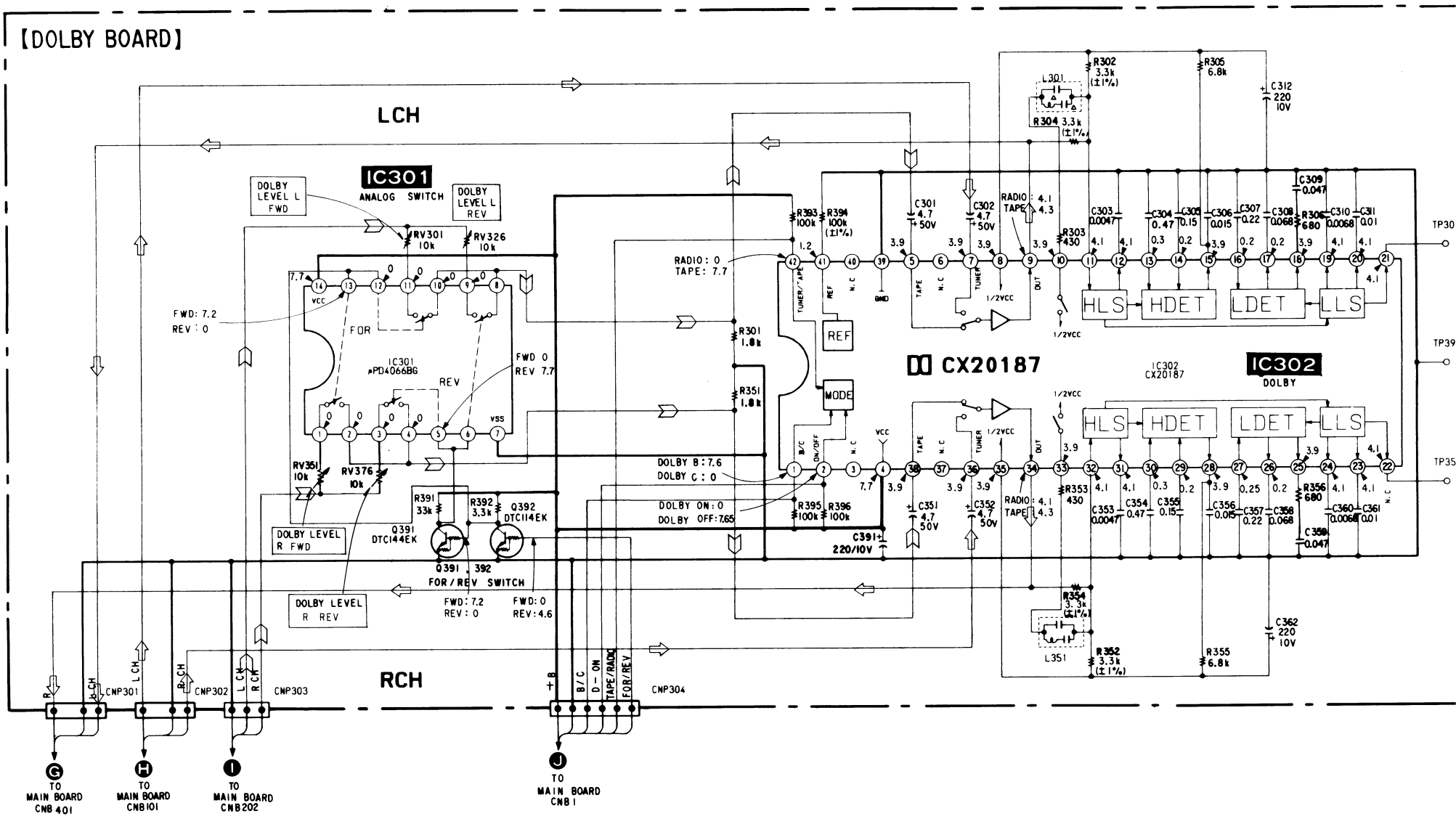
E R

【PM B

【REEL BOA


12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
SHUFF 1
5
SHUFF 2
6
–
REW
MAN
DISC
+
FF
TAPE
PLAY/DIR
XR-7201,7400
CD
XR-7201
XR-7400
TUNER
FM/AM
FM
MW/LW
XR-7202
REPEAT
2
BL SKIP
3
SEEK
AMS
M.SCAN
A.MEM
LOCAL
METAL
S2
POWER
BLU
RED
ANT
CHASSIS
FRONT
REAR
B UP
GND
ACC
AMP REM
ILLUM
ANT REM
SUB.W
3.15A
YEL
BLK
CDX-A20 INPUT
CN1001
[SUB WOOFER BOARD]
HP901
PLAYBACK HEAD
M902
MOTOR
ORG
[MECH CONTROL BOARD]
SHIELD PLATE
M901 MOTOR
[SWITCH BOARD]
[DOLBY BOARD]
LCD DISPLAY UNIT
[PM BOARD]
[REEL BOARD]
METAL B DISC C TRACK
STEREO MONO LOCAL LOUD SK
INTRO REPEAT BL.SKIP
D.SCAN SHUFF1 SHUFF2 DSK MUTE
MEM


[SWITCH BOARD]
[REEL BOARD]
[PM BOARD]
[MECH CONTROL BOARD]
IC704
MOTOR DRIVER
IC702
ANALOG SWITCH
IC701
MECH CONTROL
IC703
μPC4558G2
LINE AMP
SWITCHING
STABILIZER
DRIVER
MOTOR DRIVE
HP 901
PLAY BACK HEAD
TO MAIN BOARD CNP6
TO MAIN BOARD CNB201
TO MAIN BOARD CNP 4
TO MAIN BOARD CNP8
TO MAIN BOARD CNP7
TO MAIN BOARD CNP401
TO MAIN BOARD CNP3


[DOLBY BOARD]
LCH
RCH
IC301
ANALOG SWITCH
CX20187
IC302
DOLBY
HLS
HDET
LDET
LLS
REF
MODE
FOR/REV SWITCH
TO MAIN BOARD CNB 401
TO MAIN BOARD CNB101
TO MAIN BOARD CNB202
TO MAIN BOARD CNB 1

12 13 14 15 16 17 18 19 20 21 22

【SUB WOOFER BOARD】

TOTAL CURRENT
FM : 550mA
AM : 480mA
PB : 580mA
FF/REW : 600mA

CNB901 4P: GND, B/UP, ACC, ILLM — R901 1k, R902 1k
CNB902 8P: FRONT L CH, FRONT GND, FRONT R CH, REAR L CH, REAR GND, REAR R CH, L CH, R CH
CNB903: POWER ON, POWER +8V, POWER +14.4V, MUTE

Q850,860,950,960 MUTING
Q950 2SD1020, Q850 2SD1020, Q960 2SD1020, Q860 2SD1020
R954 1k, R953 22k, R955 4.7k, C912 47p
R854 1k, R853 22k, R855 4.7k, C910 47p
R960 1k, R961 22k, R963 4.7k, C913 47p
R860 1k, R861 22k, R863 4.7k, C911 47p
R971 47k, R972 47k, C971 1 50V
R973 15k, R974 33k
C907 4.7 16V
C906 10/6.3V

SW901: 6dB → 12dB → 18dB LEVEL-ADJ
SW902: 120Hz → 80Hz

IC901 LINE AMP
IC901 μPC4558G2
R975 1M, R976 1M, R977 560, R978 39k
R979 22k, R980 22k, R981 82k, R982 22k, R983 22k, R984 1k, R986 4.7k
C975 0.33 50V, C976 4.7 35V, C977 33 10V, C972 33 6.3V, C973 0.22 50V, C974 0.01
R987 47, R985 22k, MUTING Q951 2SD1020
STABLIZER Q916 2SA1162, R933 2.2k, R932 10k, R931 10k
Q915 DTC124EK MUTE SW, R934 10k, C902 1000 16V, D901 V09C
D906 RD4.7ESB1
STABLIZER Q910 2SD1682, R922 1k, R928 10k, R991 10k
Q914 2SA1162, R903 2.2k, D902 10E1, R907 10k, R905 10k, Q901 2SB1203 STABLIZER
C905 220 10V, D905 RD5.1EB2, C904 47 10V, C901 470p, R904 10k, R909 2.2k
Q913 DTC144EK, R942 10k, Q903 2SC2712 SWITCHING
Q913,914 SWITCHING, Q902 2SC2712 SWITCHING, R908 10k

CNP901: GND 17, ACC 16, ILLM 15, B/UP 34, AMP-CONT 33, CD-ACC CONT 32
CNP902: LCH FRONT OUT 20, GND 21, RCH FRONT OUT 22, LCH REAR OUT 3, GND 4, RCH REAR OUT 5
CNP903: SUB-WOOFER-LCH 23, GND 24, SUB-WOOFER-RCH 25
R988 220, R989 220, R927 1k

CN1001: ANT GND 18, ANT 1; NC 19, NC 2; 20, 3; 21, 4; 22, 5; CD-IN L CH 23, 6; CD-IN GND 24, 7; CD-IN R CH 25, 8; NC 26, RESET 9; NC 27, CLOCK OUT 10; MUTE 28, DSP SEL 11; NC 29, DATA OUT 12; NC 30, CLOCK IN 13; NC 31, DATA IN 14; 32, 15; 33, 16; 34, 17

L TO MAIN BOARD CNP101
M TO MAIN BOARD CNP201 (CD-IN L CH, CD-IN GND, CD-IN R CH)
N TO MAIN BOARD CNP5 (RESET, CLOCK OUT, DSP SEL, DATA OUT, CLOCK IN, DATA IN)

TUNER UNIT (FM/AM) XR-7400/7202

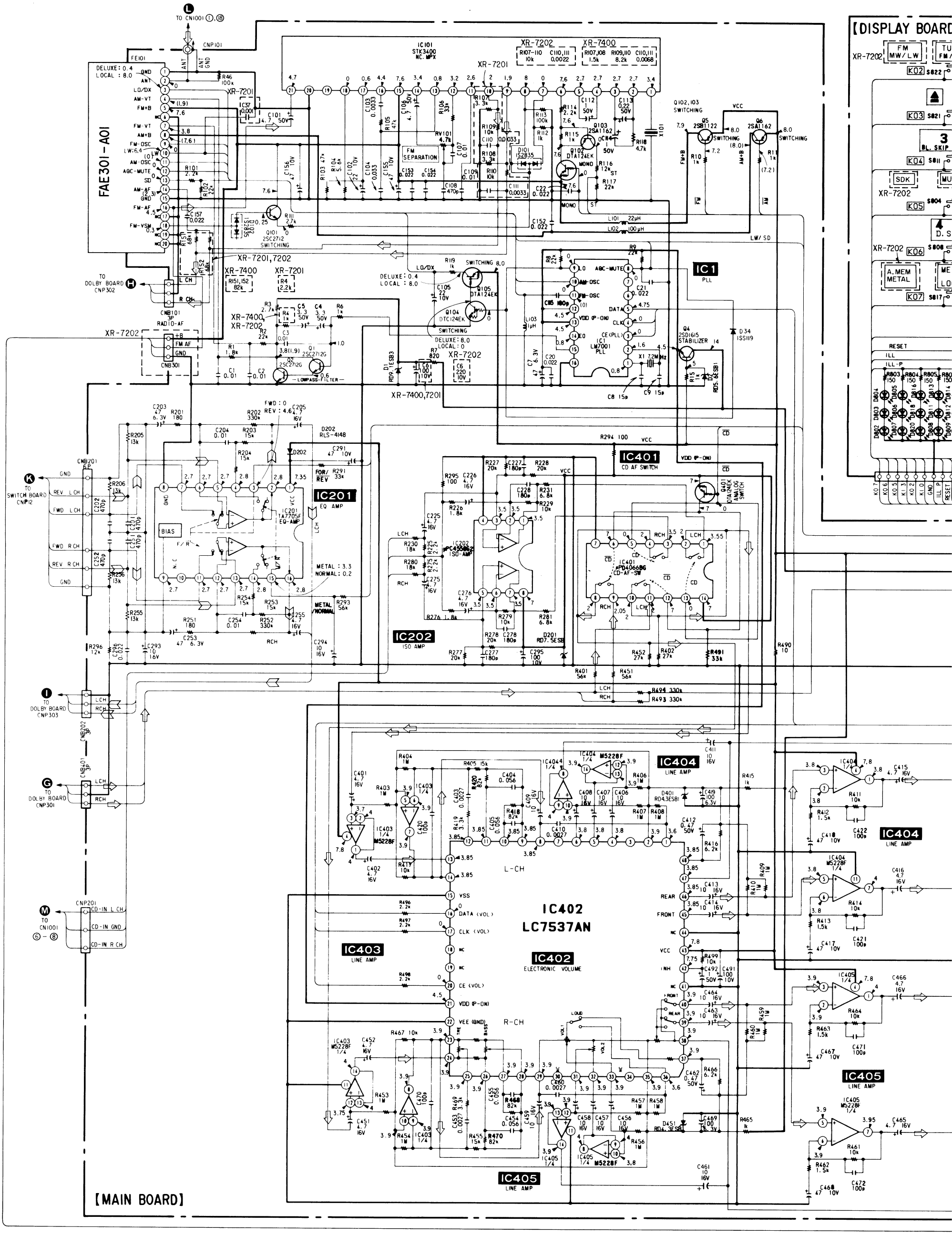
D01,02 M1105 — TR01 2SC2814 — D03 ISV103 — FET01 3SK195 — D04 ISV103 — IC01 LA1175 — D05 ISV103 — IC02 LA1145

TP301, TP391, TP351

ANT, GND, FM OSC, FM VT, FM +B, FM AF OUT, FM S METER, SD OUT, AM AF OUT, AM MUTE, DX/LO, AM OSC, AM VT, AM +B

TR07 2SC2462 — CV01 KV1235Z — TR06 2SC2462 — TR03 2SA1037 — TR02 2SC2462 — TR04,05 2SC2462 — D06,07 1SS119
IC03 LA1135 — D011 1SS119 — D08,09 1SS133 — D010 ISV172 — TR08 2SC2462 — FET02 2SK494 — CV02,03 KV1235Z

XR-7202 / XR-7400



Note

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : nonflammable resistor.
- : B+ Line
- : adjustment for repair.
- Total current is measured with no cassette installed.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM or PB
  ( ) : AM
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM ⇦ : PB

Page 37 for XR-7201 Tuner Unit Schematic Diagram.

XR-7202

S815 SENS
S818 DSPL

[AY BOARD]

XR-7201,7400

TUNER FM/AM (XR-7201,7400) | OFF | CD ▷ M | TAPE DIR/PLAY

K02 S822 S801 S823 S824

MONO | MAN − DISC REV | MAN + DISC FF

K03 S821 S816 S814 S820

3 BL. SKIP | M. SCAN A. MEM | SEEK + FF AMS | SEEK − REV AMS

K04 S811 S815 S819 S813

MUTE (XR-7201,7400) | LOUD | LEVEL − | 5 SHUFF. 1

K05 S804 S802 S805 S810

4 D. SCAN | 2 REPEAT | LEVEL + | SELECT

K06 S808 S809 S806 S803

METAL LOCAL (XR-7201, XR-7400) | 1 INTRO | 6 SHUFF. 2

K07 S817 S807 S812

K10 K11 K12 K13

RESET S816

R804 R805 R806 R807 R808 150 | R802 300 | R809 R810 150

D8Q1 ~ D825 LN1451C

CNB801

K13 K02 K10 GND ILL P RESET K12 K11 K04 K03 ILL

LCD UNIT

CMP1 14P: ILLMI KO3 KO4 KI1 KI2 RESET SW P ON ILLM GND KI0 KO2 KI3 KO5 KO6 KO7

CMP2 7P: VDD(P-ON) GND INH LCD CE DI CI LAMP

Q23 DTA114EK SWITCHING | Q8 2SA1162 SWITCHING | Q22 DTC124EK SWITCHING | Q7 DTC114EK SWITCHING

L2 220µH | D60 RLS-4148 | C19 0.001 | R12 1k

XR-7201 | XR-7201,7400 | XR-7202

D4-10,14 ISS133 | D8 D9 D14 D10 D20 ISS133

R38 56k R40 56k | R39 56k R41 56k | R55 22k 0.1

IC2 µPD75108G-640-IB — MAIN MICRO COMPUTOR

KO1 KO0 KI3 KI2 KI1 KI0 VSS ACC-CHECK SK DK BK CD CHECK

DATA(VOL) CLK(VOL) LCD-CE RESET CE<VOL> DATA-O CLK-O CE<PLL> RAM-DR

REMOTE-IN DATA-OUT CLK-OUT DISPSEL BEEP DATA-IN CLK-IN BK AMP-ON METAL/NORMAL MONO MUTE DOLBY-B DOLBY-C

RADIO: 0 TAPE: 4.6 | SWITCH PUSH: 0.6 | MTL: 3.3 MONO: 7.6

POWER ON/OFF: 3.65 | DOLBY B: 7.65 DOLBY C: 0 | DOLBY OFF: 7.65 DOLBY ON: 0

D33 RD8.2ESB3 | D16 1SS133 | Q9 DTA124EK SWITCHING | Q10 2SC2712 SWITCHING | R14 1k | R13 100 | R16 22 (1W) | Q21 2SD1077C STABILIZER | R34 10k | Q20 DTC124EK SWITCHING

IC3 CXK1011P — BACK UP

GND Vcc CLK-O CE DATA-IN BUSY TAPE-MUTE CD-MUTE VDD(B/U) N.C FM AM LW DIMMER-OFF POWER

TAPE IN/OUT: 4.7 | FM: 0.25 | AM: 0.25 | LW: 6.4

R42 56k | R51 10k | R50 10k | Q24 2SA1162 SWITCHING | R19 1k | Q11 DTC144EK | BUZZ1

L1 22µH | C13 22 6.3V | C16 1 50V | R17 22k | R18 10k | R27 33k | R45 56k

SWITCH PUSH: 4.1 SWITCH PUSH: 0.6

Q12 DTA124EK SWITCHING | RESET | IC4 S80545HN

IC4 VOLTAGE DETECT

C15 100 6.3V | C36 100 6.3V | C14 0.22/5.5V

D32 1SS133 | Q14 2SD1615 STABILIZER | R20 22k | D17 RD6.8ESB3

D18 1S2837 | R21 1k | C17 1002 | C10 22 10V | ACC-CHECK

Q19 2SC2712 SWITCHING | R44 100k | R43 100k | C27 0.01 SWITCHING

Q15 2SC2712 | R22 10k | D30 RD8.2ESB3 | R23 10k

Q18 2SD1615 STABILIZER | D19 RD9.1ESB3 | R25 1k | C18 2.2/50V

R54 10k | R37 10 | R36 12k | R35 10k

XR-7202 | VCC | RADIO: 0 TAPE: 4.6 | R26 3.3k | T-ON

RADIO: 0 TAPE: 7.7 | Q17 DTC124EK | Q16 DTC114EK — SWITCHING

C38 3.3 16V | C31 0.001 | C32 0.001 | C34 0.001 | C33 0.001

RADIO: 6.9 TAPE: 0

R32 1M | C26 100 6.3V

D22 RD6.8ESB3 | D21 RD6.8ESB3 | D23 RD6.8ESB3 | D25 RD6.8ESB3 | D24 RD6.8ESB3 | D26 RD5.1ESB1 | D27 RD6.8ESB3

C24 0.022 | C23 0.022

D28,29 1SS133

XR-7202 | C39 0.01 | SK DK BK | CNB302

D31 1SS133 | D31 | MUTE POWER +14.4V POWER +8V POWER -ON

CNP9 | CNP3 | CNB1 | CNP4 | CNP5 7P B | CNP8 | CNP6 | CNP7

FOR/REV TAPE/RADIO B/C D-ON

ACC-CHECK D29 CLK-IN DATA-IN D28 CLK-OUT DATA-OUT TAPE-ON DISPSEL R28 100 R29 100 R30 1k CD MUTE R31 100 CD CHECK

DATA IN CLK IN DISPSEL CLK OUT DATA OUT

AMS-AF B/U VDD(B/U) F/R TAPE-MUTE RES B/U ACC ILLM

R47 100k | C35 0.001

S2 POWER

Ⓑ TO SUB WOOFER BOARD CNB903

Ⓙ TO DOLBY BOARD CNP304

Ⓔ TO MECH CONTROL BOARD CNB702

Ⓝ TO CN1 ⑨-⑭,㉕

Ⓕ TO MECH CONTROL BOARD CNB703

Ⓓ TO MECH CONTROL BOARD CNB701

Ⓐ TO SUB WOOFER BOARD CNB901

CNP401

FRONT L CH | FRONT GND | FRONT R CH | REAR L CH | REAR GND | REAR R CH | L CH | R CH

Ⓒ TO SUB WOOFER BOARD CNB902

C423 0.022 | C473 0.022

[ARI BOARD]

IC602 LINE AMP

R602 68k | C602 4.7 16V | R601 47k | C606 56p

ARI LEVEL | R605 RV601 470 100 | L601 | C601 0.033 | R603 4.7k | R604 100k | C603 0.068 | R606 680k | C604 0.068 | C605 0.1 50V | R607 220k

D601 RLS-4148 | R619 470 | R620 47k | R621 47k | C613 0.022 | R622 56k

IC601 SDK DET | IC601 TDA1579

IC602 BA4558

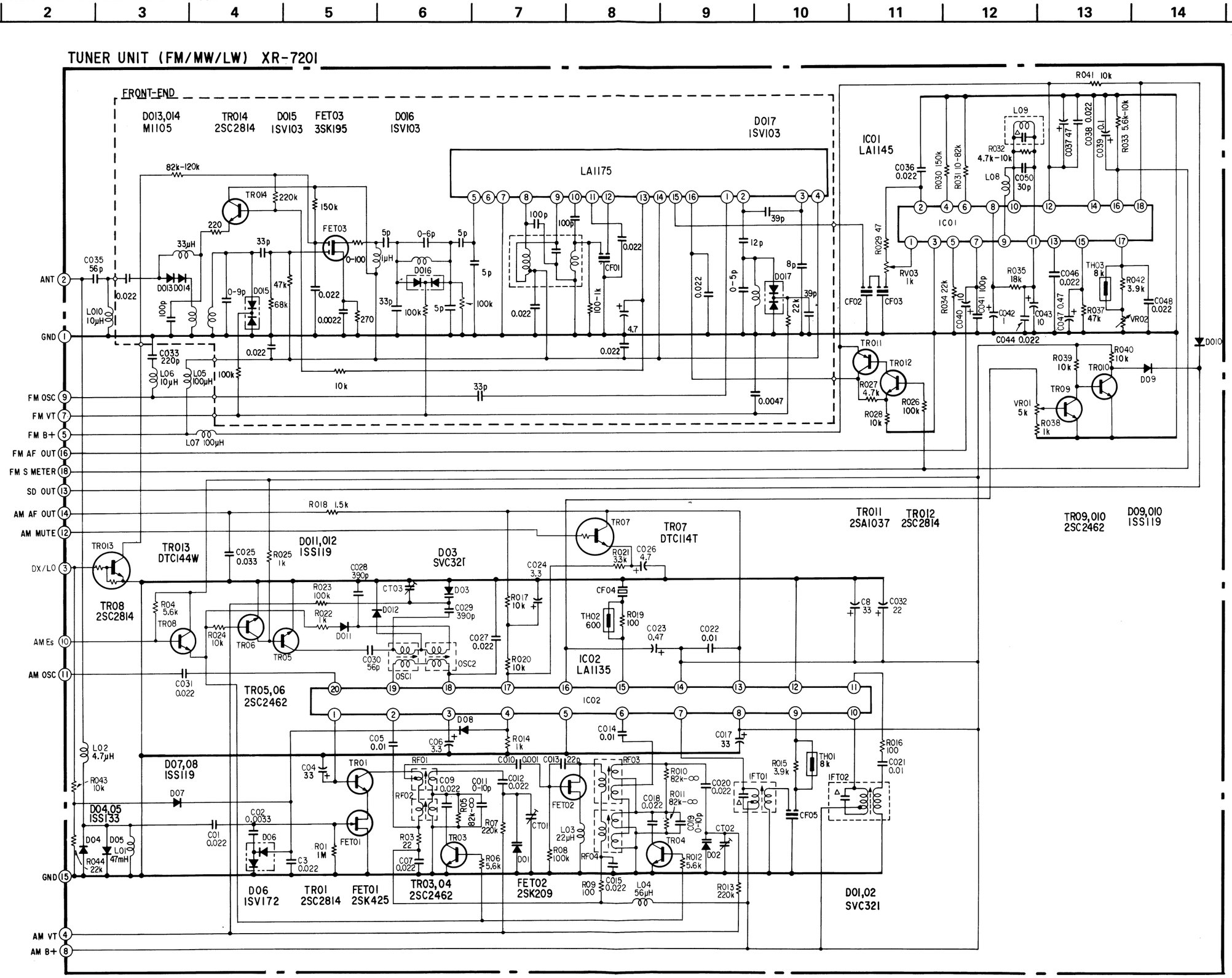
C608 0.047 | R612 620k | C609 0.047 | R609 3.3k | R611 3.3k

R615 12k | C611 0.068 | C612 0.068 | R616 240k | R617 82k

C615 33 10V | C614 0.022 | R613 47k | C610 0.1 50V | C607 0.1 50 | R608 5.6k | R610 5.6k | R614 33k | R618 47k

CNP602 SK DK BK | CNP601 +B FM AF GND

XR-7202


TUNER UNIT (FM/MW/LW) XR-7201
FRONT-END
D013,014 M1105
TR014 2SC2814
D015 1SV103
FET03 3SK195
D016 1SV103
D017 1SV103
LA1175
IC01 LA1145
IC02 LA1135
TR013 DTC144W
TR08 2SC2814
TR05,06 2SC2462
TR07 DTC114T
TR011 2SA1037
TR012 2SC2814
TR09,010 2SC2462
D09,010 1SS119
D011,012 1SS119
D03 SVC321
D07,08 1SS119
D04,05 1SS133
D06 1SV172
TR01 2SC2814
FET01 2SK425
TR03,04 2SC2462
FET02 2SK209
D01,02 SVC321
ANT
GND
FM OSC
FM VT
FM B+
FM AF OUT
FM S METER
SD OUT
AM AF OUT
AM MUTE
DX/LO
AM Es
AM OSC
AM VT
AM B+

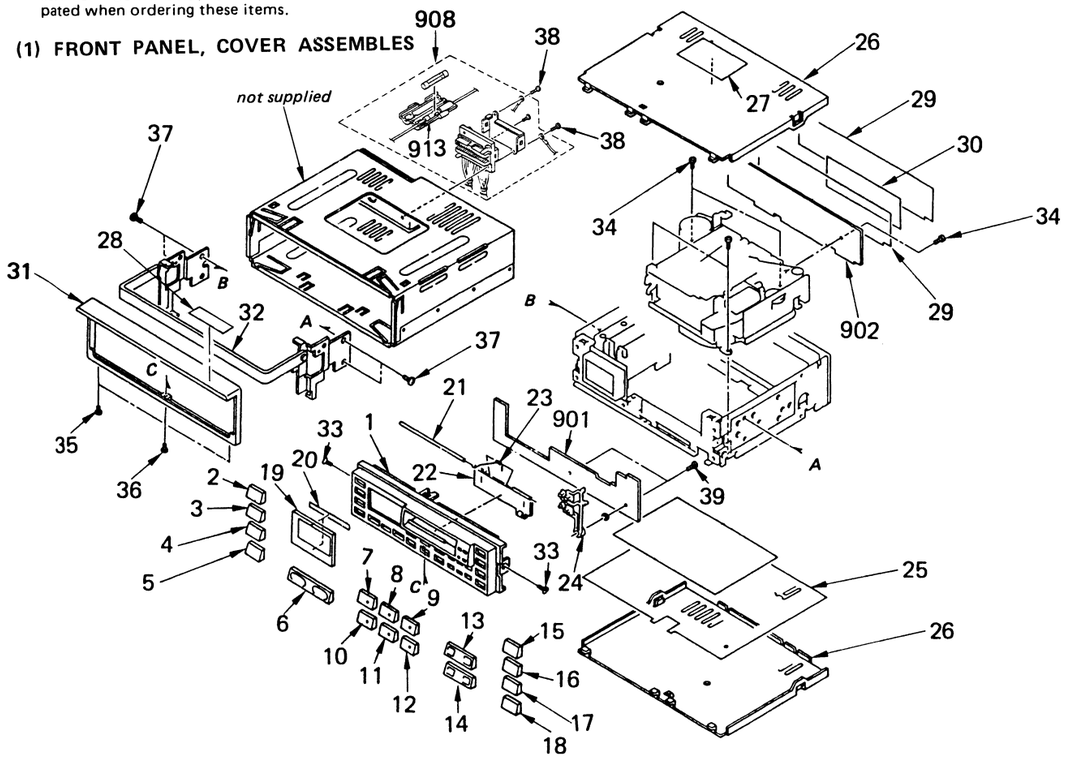
SECTION 5

EXPLODED VIEWS

NOTE:

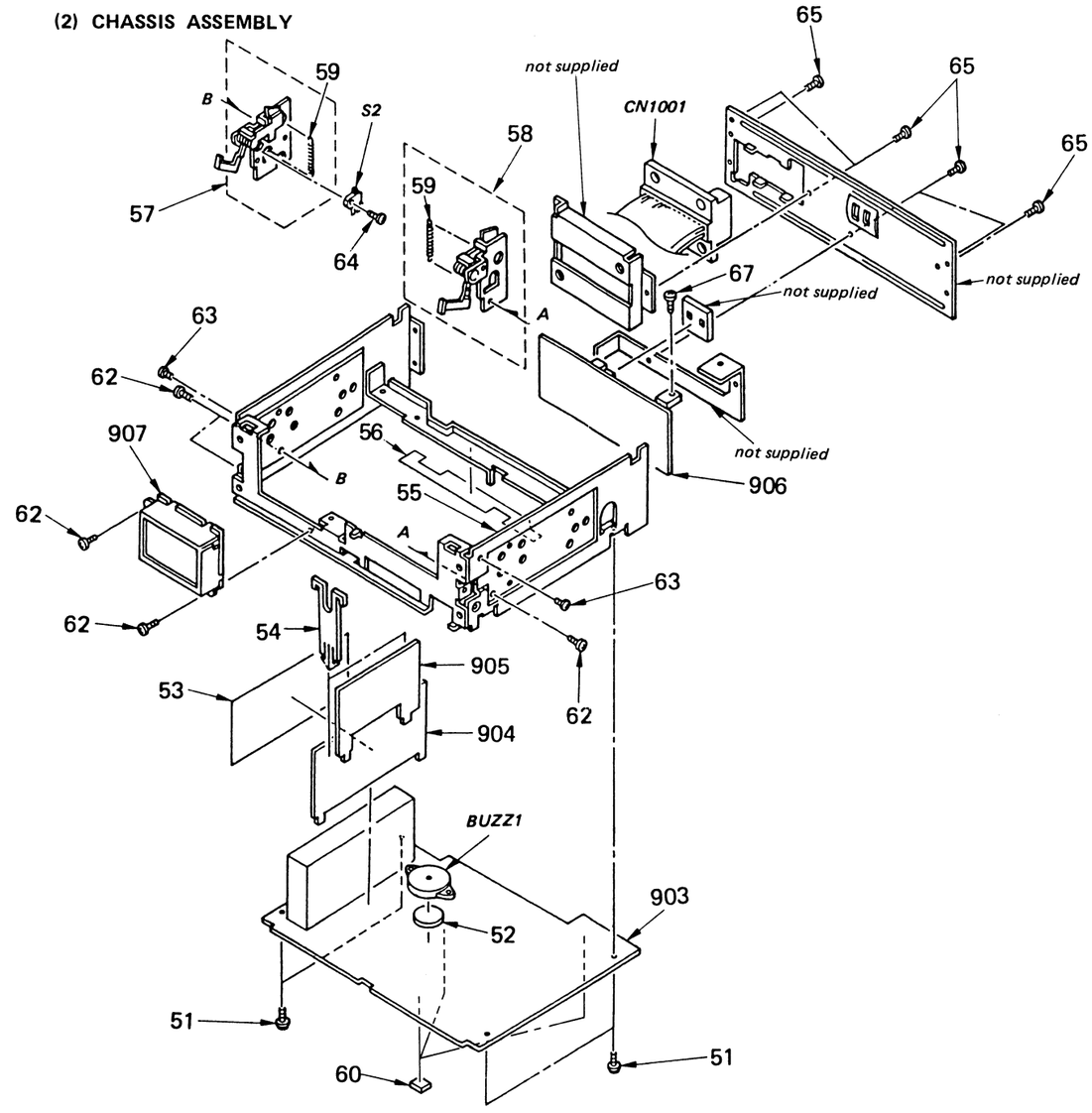
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ Cabinet's Color ↑ Parts' Color

(1) FRONT PANEL, COVER ASSEMBLES



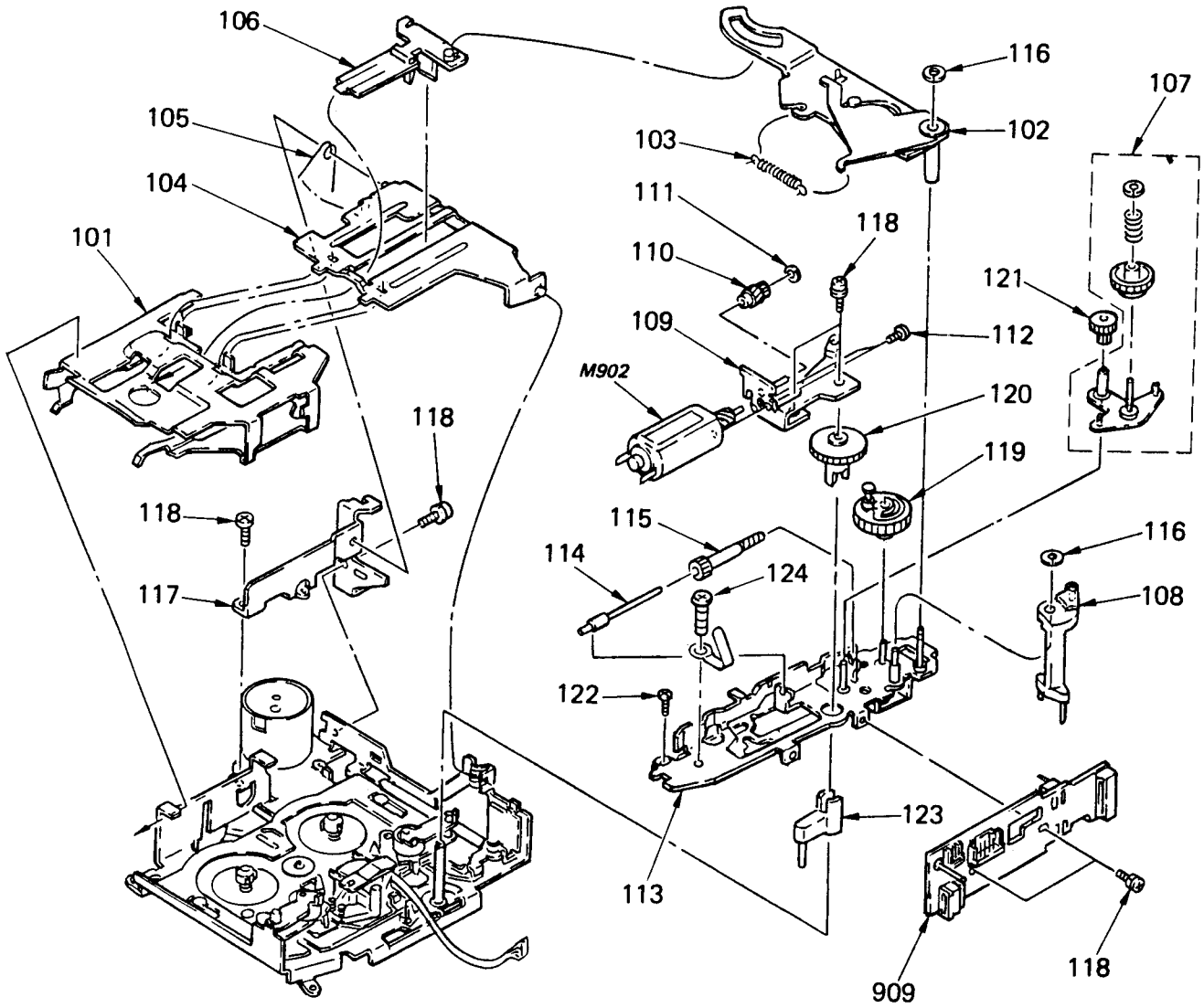
No.	Part No.	Description	Remarks
1	3-349-495-01	(7400/7201)...PANEL, FRONT	
	3-349-495-31	(7202).....PANEL, FRONT	
2	3-349-475-01	BUTTON (LU:N1)(OFF)	
3	3-349-472-01	BUTTON (M:N1)(LOUD)	
4	3-349-472-11	BUTTON (M:N1)(SELECT)	
5	3-349-476-01	(7400/7201)...BUTTON (LD:N1)(MUTE)	
	3-349-476-11	(7202).....BUTTON (LD:N1)(SDK)	
6	3-349-493-01	BUTTON (M:S3)(LEVEL)	
7	3-349-471-01	BUTTON (M:N1P)(1)	
8	3-349-471-11	BUTTON (M:N1P)(2)	
9	3-349-471-21	BUTTON (M:N1P)(3)	
10	3-349-471-31	BUTTON (M:N1P)(4)	
11	3-349-471-41	BUTTON (M:N1P)(5)	
12	3-349-471-51	BUTTON (M:N1P)(6)	
13	3-349-492-11	BUTTON (M:S2)(SEEK,AMS)	
14	3-349-492-01	BUTTON (M:S2)(MAN,DISK)	
15	3-349-473-01	BUTTON (RU:N1)(EJECT)	
16	3-349-472-21	(7400/7202)...BUTTON (M:N1)(TUNER)	
	3-349-472-71	(7201).....BUTTON (M:N1)(FM/MW/LW)	
17	3-349-472-31	BUTTON (M:N1)(CD)	
18	3-349-474-01	BUTTON (RD:N1)(TAPE)	
19	3-344-505-01	(7201/7202)...PLATE, INDICATION	
	3-344-505-11	(7400).....PLATE, INDICATION	
20	*3-325-757-01	SHEET, ADHESIVE	
21	3-332-130-01	SHAFT, C DOOR	
22	A-3249-239-A	(7202)...DOOR ASSY, CASSETTE	
	A-3249-240-A	(7201)...DOOR ASSY, CASSETTE	
	A-3249-241-A	(7400)...DOOR ASSY, CASSETTE	
23	3-332-131-01	SPRING	
24	3-344-519-01	BUTTON (D)	
25	*3-344-560-01	INSULATOR (3)	
26	*3-332-151-11	COVER	
27	*3-349-421-02	(7201).....LABEL, MODEL NUMBER (AEP-L)	
	*3-349-422-01	(7202).....LABEL, MODEL NUMBER (AEP-AR1)	
	*3-349-423-01	(7400:US)...LABEL, MODEL NUMBER (U)	
	*3-349-424-01	(7400:Canadian)..LABEL, MODEL NUMBER (CA)	
28	*3-344-593-01	(7400)...LABEL (CAUTION HANDLE)	
	*3-344-594-01	(7201)...LABEL (CAUTION HANDLE)	
	*3-344-595-01	(7202)...LABEL (CAUTION HANDLE)	
29	*3-344-503-01	INSULATOR (2)	
30	*3-344-558-01	PLATE, SHIELD	
31	3-344-564-01	FRAME, ORNAMENTAL	
32	X-3344-508-1	HANDLE ASSY	
33	7-621-770-87	SCREW +PTT 2.6X5 (S)	
34	7-621-773-86	SCREW +PTT 2.6X4 (S)	
35	7-627-553-38	SCREW, PRECISION +P 2X3	
36	7-621-283-00	SCREW +P 2X5	
37	3-344-561-01	SCREW (M4X5)	
38	7-682-652-09	SCREW +PSW 3X16	
39	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT	
901	*1-629-732-11	PC BOARD, DISPLAY	
902	*A-3216-738-A	PC BOARD ASSY, MECH CONTROL	
908	1-574-508-11	(7400).....CORD (WITH CONNECTOR) 913	
	1-574-509-11	(7201/7202)...CORD (WITH CONNECTOR) 913	
913	*1-533-218-41	(7201/7202)...HOLDER, FUSE	
	*1-553-195-11	(7400).....HOLDER, FUSE	

(2) CHASSIS ASSEMBLY



No.	Part No.	Description	Remarks
51	3-344-501-11	SCREW (+ PTT 3X8), GROUND POINT	
52	9-911-839-XX	CUSHION, FIXED	
53	*3-344-502-01	INSULATOR (1)	
54	*3-344-504-01	BRACKET (PC BOARD)	
55	*X-3344-501-6	CHASSIS ASSY	
56	*3-344-589-01	INSULATOR (4)	
57	X-3344-502-1	LOCK ASSY (LEFT)	59
58	X-3344-503-1	LOCK ASSY (RIGHT)	59
59	3-645-189-00	SPRING, TENSION	
60	9-911-840-XX	CUSHION	
62	7-621-773-86	SCREW +PTT 2.6X4 (S)	
63	7-627-553-38	SCREW, PRECISION +P 2X3	
64	7-621-283-00	SCREW +P 2X5	
65	7-682-546-04	SCREW +PTT 3X5 (S)	
67	7-682-547-04	SCREW +PTT 3X6 (S)	
903	*A-3216-739-A	(7400)...PC BOARD ASSY, MAIN	
	*A-3216-740-A	(7201)...PC BOARD ASSY, MAIN	
	*A-3216-741-A	(7202)...PC BOARD ASSY, MAIN	
904	*A-3216-437-A	MOUNTED PCB, DOLBY	
905	*1-624-417-11	PC BOARD, ARI	
906	*A-3270-565-A	MOUNTED PCB, SUB WOOFER	
907	1-808-670-11	DISPLAY PANEL, LIQUID CRYSTAL	
BUZZ1	1-529-055-11	BUZZER, PIEZOELECTRIC	
CN1001	1-574-537-11	CORD (WITH CONNECTOR)	
S2	1-570-771-11	SWITCH (POWER)	

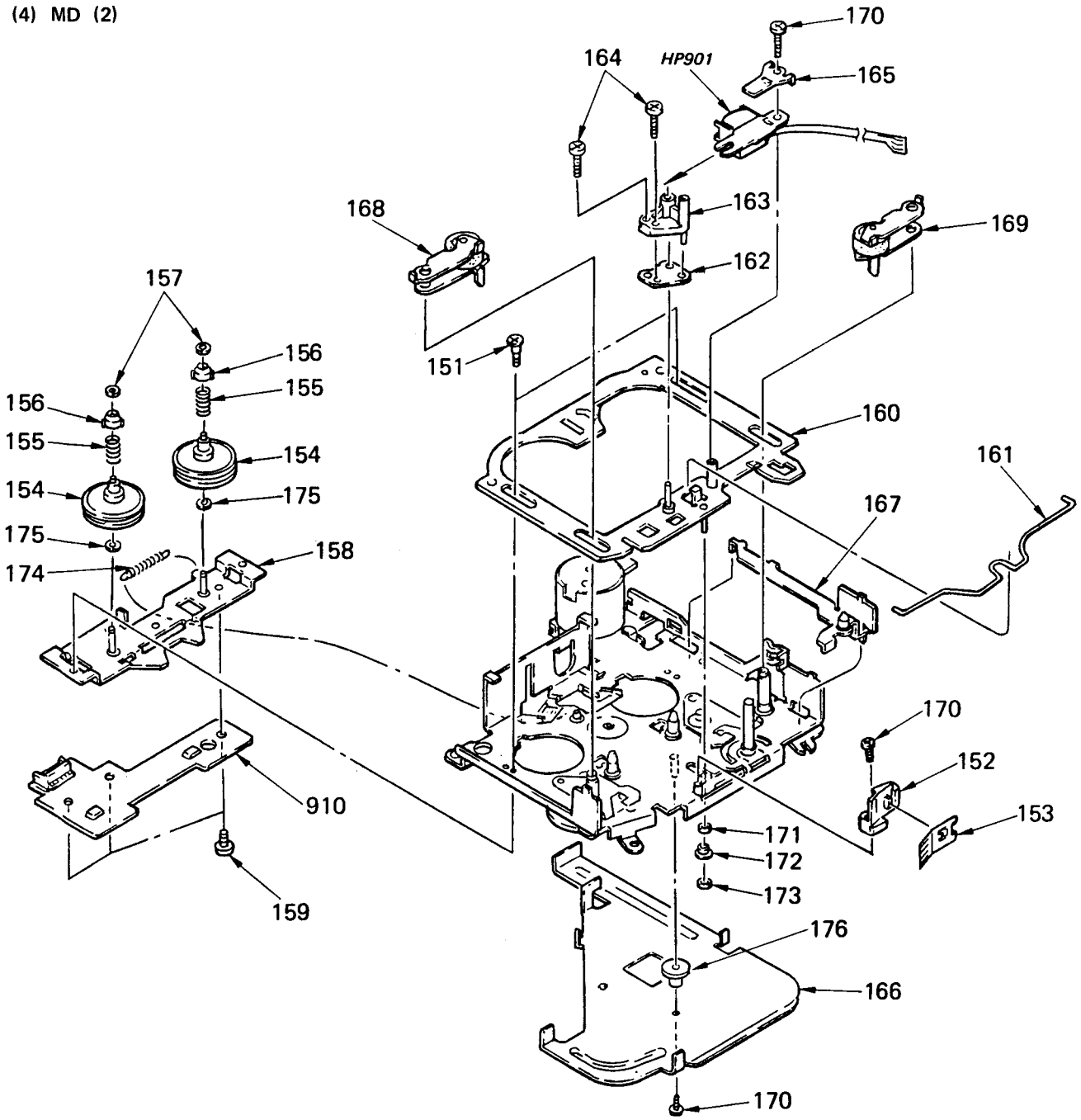
(3) MD (1)



No.	Part No.	Description	Remarks
101	*3-344-103-01	HOUSING, CASSETTE	
102	*X-3344-121-1	ARM ASSY, SUCTION	
103	3-344-216-01	SPRING (SUCTION ARM), TENSION	
104	*X-3344-120-1	HANGER ASSY, HOUSING	
105	3-344-113-01	SPRING	
106	*3-344-118-01	CATCHER	
107	A-3239-954-A	GEAR ASSY, DRIVING ARM	
108	*X-3344-122-1	ARM ASSY, REVERSE	
109	*X-3344-110-1	BRACKET ASSY, MOTOR	
110	3-344-170-01	GEAR (A), DRIVING	
111	3-344-223-01	WASHER	
112	7-627-553-27	SCREW, PRECISION +P 2X2.5	
113	*X-3344-108-1	CHASSIS ASSY, MCU	

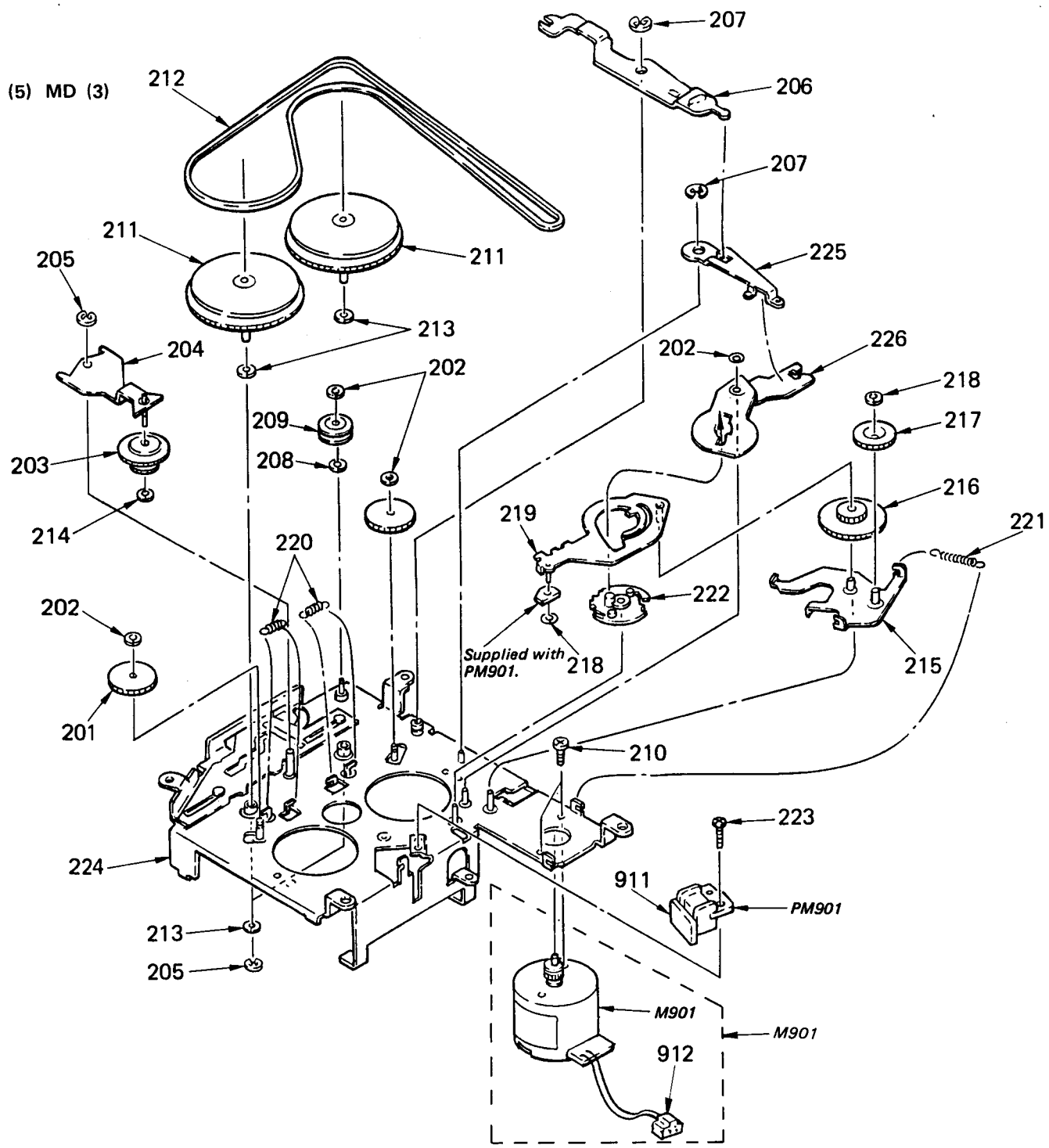
No.	Part No.	Description	Remarks
114	*3-344-157-01	SHAFT, DRIVING GEAR (B)	
115	3-344-156-01	GEAR (B), DRIVING	
116	3-344-222-01	WASHER	
117	*3-344-112-01	BRACKET, HANGER	
118	7-628-253-00	SCREW +PS 2X4	
119	X-3344-119-1	GEAR ASSY, LOADING CAM	
120	3-344-114-01	GEAR, MODE	
121	3-344-108-01	GEAR (A), FRICTION	
122	7-621-255-25	SCREW +P 2X4	
123	X-3344-117-1	ARM ASSY, MODE	
124	7-621-773-86	SCREW +P 2.6X4	
909	*1-624-413-11	PC BOARD, SWITH	
M902	A-3239-956-B	MOTOR SUB ASSY, L	

(4) MD (2)



No.	Part No.	Description	Remarks
151	3-344-110-01	SCREW (HB), STEP	
152	*3-344-154-01	HOLDER, CONTACT	
153	3-344-155-01	CONTACT (SWITCH)	
154	X-3344-104-1	TABLE ASSY, REEL	
155	3-344-143-01	SPRING (BT), COMPRESSION	
156	3-344-136-01	CAP, REEL	
157	3-344-224-01	WASHER	
158	*X-3344-105-1	BRACKET ASSY, REEL TABLE	
159	7-627-553-27	SCREW, PRECISION +P 2X2.5	
160	*X-3344-103-1	BASE ASSY, HEAD	
161	3-344-129-01	SPRING	
162	3-344-128-01	SEAM, DAH	
163	3-344-127-01	ARM, DAH	
164	7-627-850-67	SCREW, PRECISION +P 1.4X4	

No.	Part No.	Description	Remarks
165	3-344-130-01	RETAINER, HEAD	
166	*3-344-220-01	COVER, MD	
167	*X-3344-118-1	LEVER ASSY, RVS CONVERSION	
168	X-3344-116-1	ARM (F) ASSY, PINCH	
169	X-3344-115-1	ARM (R) ASSY, PINCH	
170	7-627-850-18	SCREW, PRECISION +P 1.4X2.5	
171	3-344-117-01	ROLLER (B), H/B	
172	3-344-116-01	ROLLER (A), H/B	
173	3-344-222-01	WASHER	
174	3-344-217-01	SPRING (CAM LOCK LEVER), TENTION	
175	3-701-437-11	POLY-SLIDER (A)	
176	3-344-251-01	RETAINER, MODE LEVER	
910	*1-624-412-11	PC BOARD, REEL	
HP901	1-543-567-11	HEAD, MAGNETIC (PLAYBACK)	



No.	Part No.	Description	Remarks
201	3-344-104-01	GEAR, PLAY	
202	3-344-222-01	WASHER	
203	X-3344-102-1	GEAR ASSY, FR	
204	*X-3344-101-1	ARM ASSY, FR	
205	3-590-768-00	RING (A), E	
206	*3-344-107-01	ARM, POWER	
207	7-624-104-04	STOP RING 2.0, TYPE -E	
208	3-701-436-01	WASHER, 1.6	
209	3-344-105-01	PULLEY (ASSY), MIDWAY	
210	7-627-553-27	SCREW, PRECISION +P 2X2.5	
211	3-344-231-01	FLYWHEEL (A)	
212	3-344-115-01	BELT	
213	3-701-437-11	POLY-SLIDER (A)	
214	3-344-224-01	WASHER, FR SLIP	
215	*X-3344-106-1	LEVER ASSY, RVS GEAR (B)	

No.	Part No.	Description	Remarks
216	3-344-146-01	GEAR (B), RVS	
217	3-344-147-01	GEAR (A), RVS	
218	3-344-223-01	WASHER	
219	X-3344-107-1	LEVER ASSY, CAM LOCK	
220	3-344-218-01	SPRING (PLAY ARM), TENSION	
221	3-344-215-01	SPRING, TENSION	
222	3-344-119-01	GEAR, RVS CAM	
223	7-627-850-67	SCREW, PRECISION +P 1.4X4	
224	*X-3344-135-1	CHASSIS ASSY, MECHANICAL	
225	*3-344-106-01	LEVER, LDG	
226	*X-3344-114-1	LEVER ASSY, RVS	
911	*1-624-412-11	PC BOARD, PM	
912	*1-563-470-11	HOUSING, CONNECTOR 2P	
M901	X-3344-136-1	MOTOR ASSY, CAPSTAN	
PM901	1-454-461-11	SOLENOID, PLUNGER	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.
- CND: Canadian

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

Ref.No.	Part No.	Description			
901	*1-629-732-11	PC BOARD, DISPLAY			
902	*A-3216-738-A	PC BOARD ASSY, MECH CONTROL			
903	*A-3216-739-A	(7400)...PC BOARD ASSY, MAIN			
	*A-3216-740-A	(7201)...PC BOARD ASSY, MAIN			
	*A-3216-741-A	(7202)...PC BOARD ASSY, MAIN			
904	*A-3216-437-A	MOUNTED PCB, DOLBY			
905	*1-624-417-11	PC BOARD, ARI			
906	*A-3270-565-A	MOUNTED PCB, SUB WOOFER			
907	1-808-670-11	DISPLAY PANEL, LIQUID CRYSTAL			
908	1-574-508-11	(7400)....CORD (WITH CONNECTOR)			913
	1-574-509-11	(7201/7202)...CORD(WITH CONNECTOR)			913
909	*1-624-413-11	PC BOARD, SWITCH			
910	*1-624-412-11	PC BOARD, REEL			
911	*1-624-412-11	PC BOARD, PM			
912	*1-563-470-11	HOUSING, CONNECTOR 2P			
913	*1-533-218-41	(7201/7202)...HOLDER, FUSE			
	*1-553-195-11	(7400).....HOLDER, FUSE			
BUZZ1	1-529-055-11	BUZZER, PIEZOELECTRIC			
C1	1-163-059-00	CERAMIC MELF	0.01MF	20%	16V
C2	1-163-059-00	CERAMIC MELF	0.01MF	20%	16V
C3	1-130-483-00	MYLAR	0.01MF	5%	50V
C4	1-126-162-11	ELECT	3.3MF	20%	50V
C5	1-126-162-11	ELECT	3.3MF	20%	50V
C6	1-124-584-00	(7201/7400) ...ELECT	100MF	20%	10V
C6	1-126-176-11	(7202)...ELECT	220MF	20%	10V
C7	1-126-154-11	ELECT	47MF	20%	6.3V
C8	1-163-161-00	CERAMIC MELF	15PF	5%	50V
C9	1-163-161-00	CERAMIC MELF	15PF	5%	50V
C10	1-124-638-11	ELECT	22MF	20%	10V
C11	1-163-169-00	CERAMIC MELF	33PF	5%	50V
C12	1-163-169-00	CERAMIC MELF	33PF	5%	50V
C13	1-131-379-00	TANTALUM	22MF	10%	6.3V
C14	1-125-486-11		0.22F		5.5V
C15	1-124-225-00	ELECT	100MF	20%	6.3V
C16	1-124-438-00	ELECT	1MF	20%	50V
C17	1-163-063-00	CERAMIC MELF	0.022MF		25V
C18	1-124-257-00	ELECT	2.2MF	20%	50V
C19	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C20	1-163-063-00	CERAMIC MELF	0.022MF		25V
C21	1-163-063-00	CERAMIC MELF	0.022MF		25V
C22	1-163-063-00	CERAMIC MELF	0.022MF		25V
C23	1-163-063-00	CERAMIC MELF	0.022MF		25V
C24	1-163-063-00	CERAMIC MELF	0.022MF		25V
C26	1-124-442-00	ELECT	330MF	20%	6.3V
C27	1-163-059-00	CERAMIC MELF	0.01MF	20%	16V
C31	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V
C32	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V
C33	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V
C34	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V
C35	1-163-205-00	CERAMIC CHIP	0.001MF	10%	50V
C36	1-124-225-00	ELECT	100MF	20%	6.3V
C37	1-163-205-00	(7201)...CERAMIC	0.001MF	10%	50V
C38	1-131-368-00	(7202)...TANTALUM	3.3MF	20%	16V
C39	1-161-051-00	(7202)...CERAMIC	0.01MF	20%	16V
C101	1-126-163-11	ELECT	4.7MF	20%	50V
C102	1-124-638-11	ELECT	22MF	20%	10V
C103	1-163-053-00	CERAMIC MELF	0.0033MF	20%	16V
C104	1-130-489-00	MYLAR	0.033MF	5%	50V
C105	1-124-638-11	ELECT	22MF	20%	10V
C106	1-126-163-11	ELECT	4.7MF	20%	50V
C107	1-163-059-00	CERAMIC MELF	0.01MF	20%	16V
C108	1-163-197-00	CERAMIC MELF	470PF	10%	50V
C109	1-130-483-00	MYLAR	0.01MF	5%	50V
C110	1-163-057-00	(7400)...CERAMIC MELF	0.0068MF	20%	16V
C110	1-163-053-00	(7201)...CERAMIC MELF	0.0033MF	20%	16V
C110	1-163-213-00	(7202)...CERAMIC MELF	0.0022MF	20%	16V
C111	1-163-057-00	(7400)...CERAMIC MELF	0.0068MF	20%	16V
C111	1-163-053-00	(7201)...CERAMIC MELF	0.0033MF	20%	16V
C111	1-163-213-00	(7202)...CERAMIC MELF	0.0022MF	20%	16V
C112	1-124-438-00	ELECT	1MF	20%	50V
C113	1-124-464-11	ELECT	0.22MF	20%	50V
C114	1-124-438-00	ELECT	1MF	20%	50V
C115	1-163-187-00	CERAMIC MELF	180PF	10%	50V
C152	1-163-063-00	CERAMIC MELF	0.022MF		25V
C153	1-163-063-00	CERAMIC MELF	0.022MF		25V
C154	1-163-063-00	CERAMIC MELF	0.022MF		25V
C155	1-124-446-11	ELECT	47MF	20%	10V
C156	1-124-589-11	ELECT	47MF	20%	10V
C157	1-163-063-00	CERAMIC MELF	0.022MF		25V
C201	1-136-367-11	FILM	470PF	5%	50V
C202	1-136-367-11	FILM	470PF	5%	50V
C203	1-126-154-11	ELECT	47MF	20%	6.3V
C204	1-130-483-00	FILM	0.01MF	5%	50V
C205	1-126-281-11	ELECT	4.7MF	20%	16V
C225	1-126-281-11	ELECT	4.7MF	20%	16V
C226	1-126-281-11	ELECT	4.7MF	20%	16V
C227	1-163-187-00	CERAMIC MELF	180PF	10%	50V

Ref.No.	Part No.	Description			
C228	1-163-187-00	CERAMIC MELF	180PF	10%	50V
C251	1-136-367-11	FILM	470PF	5%	50V
C252	1-136-367-11	FILM	470PF	5%	50V
C253	1-126-154-11	ELECT	47MF	20%	6.3V
C254	1-130-483-00	FILM	0.01MF	5%	50V
C255	1-126-281-11	ELECT	4.7MF	20%	16V
C275	1-126-281-11	ELECT	4.7MF	20%	16V
C276	1-126-281-11	ELECT	4.7MF	20%	16V
C277	1-163-187-00	CERAMIC MELF	180PF	10%	50V
C278	1-163-187-00	CERAMIC MELF	180PF	10%	50V
C291	1-124-589-11	ELECT	47MF	20%	10V
C293	1-126-157-11	ELECT	10MF	20%	16V
C294	1-126-157-11	ELECT	10MF	20%	16V
C295	1-124-584-00	ELECT	100MF	20%	10V
C296	1-163-063-00	CERAMIC MELF	0.022MF		25V
C301	1-126-163-11	ELECT	4.7MF	20%	50V
C302	1-126-163-11	ELECT	4.7MF	20%	50V
C303	1-130-479-00	MYLAR	0.0047MF	5%	50V
C304	1-136-173-00	FILM	0.47MF	5%	50V
C305	1-136-167-00	FILM	0.15MF	5%	50V
C306	1-130-485-00	MYLAR	0.015MF	5%	50V
C307	1-136-169-00	FILM	0.22MF	5%	50V
C308	1-130-493-00	MYLAR	0.068MF	5%	50V
C309	1-130-491-00	MYLAR	0.047MF	5%	50V
C310	1-130-481-00	MYLAR	0.0068MF	5%	50V
C311	1-130-483-00	MYLAR	0.01MF	5%	50V
C312	1-126-176-11	ELECT	220MF	20%	10V
C351	1-126-163-11	ELECT	4.7MF	20%	50V
C352	1-126-163-11	ELECT	4.7MF	20%	50V
C353	1-130-479-00	MYLAR	0.0047MF	5%	50V
C354	1-136-173-00	FILM	0.47MF	5%	50V
C355	1-136-167-00	FILM	0.15MF	5%	50V
C356	1-130-485-00	MYLAR	0.015MF	5%	50V
C357	1-136-169-00	FILM	0.22MF	5%	50V
C358	1-130-493-00	MYLAR	0.068MF	5%	50V
C359	1-130-491-00	MYLAR	0.047MF	5%	50V
C360	1-130-481-00	MYLAR	0.0068MF	5%	50V
C361	1-130-483-00	MYLAR	0.01MF	5%	50V
C362	1-126-176-11	ELECT	220MF	20%	10V
C391	1-126-176-11	ELECT	220MF	20%	10V
C401	1-126-281-11	ELECT	4.7MF	20%	16V
C402	1-126-281-11	ELECT	4.7MF	20%	16V
C403	1-136-376-00	FILM	0.0027MF	5%	50V
C404	1-136-162-00	FILM	0.056MF	5%	50V
C405	1-136-162-00	FILM	0.056MF	5%	50V
C406	1-126-157-11	ELECT	10MF	20%	16V
C407	1-126-157-11	ELECT	10MF	20%	16V
C408	1-126-157-11	ELECT	10MF	20%	16V
C409	1-126-157-11	ELECT	10MF	20%	16V
C410	1-163-215-00	CERAMIC CHIP	0.0027MF	5%	50V
C411	1-126-157-11	ELECT	10MF	20%	16V
C412	1-126-159-11	ELECT	0.47MF	20%	50V
C413	1-126-157-11	ELECT	10MF	20%	16V
C414	1-126-157-11	ELECT	10MF	20%	16V
C415	1-126-281-11	ELECT	4.7MF	20%	16V
C416	1-126-281-11	ELECT	4.7MF	20%	16V
C417	1-124-589-11	ELECT	47MF	20%	10V

Ref.No.	Part No.	Description			
C418	1-124-589-11	ELECT	47MF	20%	10V
C419	1-124-225-00	ELECT	100MF	20%	6.3V
C420	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C421	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C422	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C423	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C451	1-126-281-11	ELECT	4.7MF	20%	16V
C452	1-126-281-11	ELECT	4.7MF	20%	16V
C453	1-136-376-00	FILM	0.0027MF	5%	50V
C454	1-136-162-00	FILM	0.056MF	5%	50V
C455	1-136-162-00	FILM	0.056MF	5%	50V
C456	1-126-157-11	ELECT	10MF	20%	16V
C457	1-126-157-11	ELECT	10MF	20%	16V
C458	1-126-157-11	ELECT	10MF	20%	16V
C459	1-126-157-11	ELECT	10MF	20%	16V
C460	1-163-215-00	CERAMIC CHIP	0.0027MF	5%	50V
C461	1-126-157-11	ELECT	10MF	20%	16V
C462	1-126-159-11	ELECT	0.47MF	20%	50V
C463	1-126-157-11	ELECT	10MF	20%	16V
C464	1-126-157-11	ELECT	10MF	20%	16V
C465	1-126-281-11	ELECT	4.7MF	20%	16V
C466	1-126-281-11	ELECT	4.7MF	20%	16V
C467	1-124-589-11	ELECT	47MF	20%	10V
C468	1-124-589-11	ELECT	47MF	20%	10V
C469	1-124-225-00	ELECT	100MF	20%	6.3V
C470	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C471	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C472	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C473	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V
C491	1-124-584-00	ELECT	100MF	20%	10V
C492	1-124-438-00	ELECT	1MF	20%	50V
C601	1-130-477-00	(7202)...FILM	0.0033MF	5%	50V
C602	1-126-094-11	(7202)...ELECT	4.7MF	20%	16V
C603	1-136-175-00	(7202)...FILM	0.068MF	5%	50V
C604	1-136-175-00	(7202)...FILM	0.068MF	5%	50V
C605	1-124-463-00	(7202)...ELECT	0.1MF	20%	50V
C606	1-163-175-00	(7202)...CERAMIC MELF	56PF	5%	50V
C607	1-124-463-00	(7202)...ELECT	0.1MF	20%	50V
C608	1-136-161-00	(7202)...FILM	0.047MF	5%	50V
C609	1-136-161-00	(7202)...FILM	0.047MF	5%	50V
C610	1-124-463-00	(7202)...ELECT	0.1MF	20%	50V
C611	1-136-175-00	(7202)...FILM	0.068MF	5%	50V
C612	1-136-175-00	(7202)...FILM	0.068MF	5%	50V
C613	1-163-063-00	(7202)...CERAMIC MELF	0.022MF		25V
C614	1-163-063-00	(7202)...CERAMIC MELF	0.022MF		25V
C615	1-124-229-00	(7202)...ELECT	33MF	20%	10V
C701	1-163-063-00	CERAMIC MELF	0.022MF		25V
C702	1-163-063-00	CERAMIC MELF	0.022MF		25V
C703	1-163-063-00	CERAMIC MELF	0.022MF		25V
C704	1-131-379-00	TANTALUM	22MF	10%	6.3V
C705	1-163-169-00	CERAMIC MELF	33PF	5%	50V
C706	1-163-169-00	CERAMIC MELF	33PF	5%	50V
C707	1-124-242-00	ELECT	33MF	20%	16V
C708	1-124-242-00	ELECT	33MF	20%	16V
C709	1-124-463-00	ELECT	0.1MF	20%	50V
C710	1-126-162-11	ELECT	3.3MF	20%	50V
C711	1-126-154-11	ELECT	47MF	20%	6.3V
C712	1-126-160-11	ELECT	1MF	20%	50V

Ref.No.	Part No.	Description			
C713	1-124-360-00	ELECT	1000MF	20%	16V
C714	1-163-063-00	CERAMIC MELF	0.022MF		25V
C715	1-163-063-00	CERAMIC MELF	0.022MF		25V
C716	1-163-205-00	CERAMIC MELF	0.001MF	10%	50V
C901	1-163-197-00	CERAMIC MELF	470PF	10%	50V
C902	1-124-360-00	ELECT	1000MF	20%	16V
C904	1-124-589-11	ELECT	47MF	20%	10V
C905	1-126-176-11	ELECT	220MF	20%	10V
C906	1-126-157-11	ELECT	10MF	20%	6.3V
C907	1-126-094-11	ELECT	4.7MF	20%	16V
C910	1-163-173-00	CERAMIC MELF	47PF	5%	50V
C911	1-163-173-00	CERAMIC MELF	47PF	5%	50V
C912	1-163-173-00	CERAMIC MELF	47PF	5%	50V
C913	1-163-173-00	CERAMIC MELF	47PF	5%	50V
C971	1-126-160-11	ELECT	1MF	20%	50V
C972	1-124-229-00	ELECT	33MF	20%	6.3V
C973	1-124-464-11	ELECT	0.22MF	20%	50V
C974	1-130-483-00	MYLAR	0.01MF	5%	50V
C975	1-124-252-00	ELECT	0.33MF	20%	50V
C976	1-126-094-11	ELECT	4.7MF	20%	35V
C977	1-124-229-00	ELECT	33MF	20%	10V
CN1001	1-574-537-11	CORD (WITH CONNECTOR)			
CNJ11	*1-563-464-11	SOCKET, CONNECTOR 10P			
CNJ14	1-565-038-11	CONNECTOR, F.P.C 5P			
CNP1	*1-506-996-11	PIN, CONNECTOR (PC BOARD) 14P			
CNP2	*1-506-989-11	PIN, CONNECTOR (PC BOARD) 7P			
CNP3	*1-506-988-11	PIN, CONNECTOR (PC BOARD) 6P			
CNP4	*1-566-004-11	PIN, CONNECTOR (PC BOARD) 7P			
CNP5	*1-566-004-21	PIN, CONNECTOR (PC BOARD) 7P			
CNP6	*1-566-002-11	PIN, CONNECTOR (PC BOARD) 5P			
CNP7	*1-566-001-11	PIN, CONNECTOR (PC BOARD) 4P			
CNP8	*1-506-999-11	PIN, CONNECTOR (PC BOARD) 3P			
CNP9	*1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P			
CNP12	*1-566-003-11	PIN, CONNECTOR (PC BOARD) 6P			
CNP13	*1-506-998-11	PIN, CONNECTOR (PC BOARD) 2P			
CNP15	*1-566-002-11	PIN, CONNECTOR (PC BOARD) 5P			
CNP101	*1-563-961-11	SOCKET, CONNECTOR			
CNP201	*1-506-999-11	PIN, CONNECTOR (PC BOARD) 3P			
CNP301	*1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P			
CNP302	*1-506-985-31	PIN, CONNECTOR (PC BOARD) 3P			
CNP303	*1-506-999-11	PIN, CONNECTOR (PC BOARD) 3P			
CNP304	*1-506-988-11	PIN, CONNECTOR (PC BOARD) 6P			
CNP401	*1-506-990-11	PIN, CONNECTOR (PC BOARD) 8P			
CNP601	*1-506-985-11	(7202)...PIN, CONNECTOR (PC BOARD) 3P			
CNP602	*1-506-985-21	(7202)...PIN, CONNECTOR (PC BOARD) 3P			
CNP701	*1-506-981-11	PIN, CONNECTOR 10P			
CNP702	*1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P			
CNP901	*1-560-894-00	PIN, CONNECTOR 6P			
CNP902	*1-506-988-11	PIN, CONNECTOR (PC BOARD) 6P			
CNP903	*1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P			
D1	8-719-110-14	DIODE RD9.1ES-B3			
D2	8-719-109-88	DIODE RD5.6ES-B1			
D4	8-719-911-19	DIODE 1SS119			
D5	8-719-911-19	DIODE 1SS119			
D6	8-719-911-19	DIODE 1SS119			
D7	8-719-911-19	DIODE 1SS119			

Ref.No.	Part No.	Description
D8	8-719-911-19	(7201).....DIODE 1SS119
D9	8-719-911-19	(7201/7400)...DIODE 1SS119
D10	8-719-911-19	(7202).....DIODE 1SS119
D14	8-719-911-19	DIODE 1SS119
D16	8-719-911-19	DIODE 1SS119
D17	8-719-109-96	DIODE RD6.8ES-B1
D18	8-719-100-05	DIODE 1S2837
D19	8-719-110-14	DIODE RD9.1ES-B3
D20	8-719-911-19	DIODE 1SS119
D21	8-719-109-98	DIODE RD6.8ES-B3
D22	8-719-109-98	DIODE RD6.8ES-B3
D23	8-719-109-98	DIODE RD6.8ES-B3
D24	8-719-109-98	DIODE RD6.8ES-B3
D25	8-719-109-98	DIODE RD6.8ES-B3
D26	8-719-109-84	DIODE RD5.1ES-B1
D27	8-719-109-98	DIODE RD6.8ES-B3
D28	8-719-911-19	DIODE 1SS119
D29	8-719-911-19	DIODE 1SS119
D30	8-719-110-09	DIODE RD8.2ES-B3
D31	8-719-911-19	DIODE 1SS119
D32	8-719-911-19	DIODE 1SS119
D33	8-719-110-09	DIODE RD8.2ES-B3
D34	8-719-100-05	DIODE 1S2837
D60	8-719-976-19	DIODE RLS-4148
D101	8-719-100-03	DIODE 1S2835
D102	8-719-100-03	DIODE 1S2835
D201	8-719-110-03	DIODE RD7.5ES-B2
D202	8-719-976-19	DIODE RLS-4148
D401	8-719-109-74	DIODE RD4.3ES-B1
D451	8-719-109-74	DIODE RD4.3ES-B1
D601	8-719-976-19	(7202)...DIODE RLS-4148
D701	8-719-911-19	DIODE 1SS119
D702	8-719-911-19	DIODE 1SS119
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119
D705	8-719-100-05	DIODE 1S2837
D706	8-719-100-05	DIODE 1S2837
D707	8-719-110-21	DIODE RD11ES-B1
D708	8-719-911-19	DIODE 1SS119
D709	8-719-911-19	DIODE 1SS119
D710	8-719-911-19	DIODE 1SS119
D711	8-719-911-19	DIODE 1SS119
D801	8-719-404-22	DIODE LN1451C
D802	8-719-404-22	DIODE LN1451C
D803	8-719-404-22	DIODE LN1451C
D804	8-719-404-22	DIODE LN1451C
D805	8-719-404-22	DIODE LN1451C
D806	8-719-404-22	DIODE LN1451C
D807	8-719-404-22	DIODE LN1451C
D808	8-719-404-22	DIODE LN1451C
D809	8-719-404-22	DIODE LN1451C
D810	8-719-404-22	DIODE LN1451C
D811	8-719-404-22	DIODE LN1451C
D812	8-719-404-22	DIODE LN1451C
D813	8-719-404-22	DIODE LN1451C
D814	8-719-404-22	DIODE LN1451C
D815	8-719-404-22	DIODE LN1451C

Ref.No.	Part No.	Description
D816	8-719-404-22	DIODE LN1451C
D817	8-719-404-22	DIODE LN1451C
D818	8-719-404-22	DIODE LN1451C
D819	8-719-404-22	DIODE LN1451C
D820	8-719-404-22	DIODE LN1451C
D821	8-719-404-22	DIODE LN1451C
D822	8-719-404-22	DIODE LN1451C
D823	8-719-404-22	DIODE LN1451C
D824	8-719-404-22	DIODE LN1451C
D825	8-719-404-22	DIODE LN1451C
D901	8-719-900-95	DIODE V09C
D902	8-719-200-02	DIODE 10E-2
D905	8-719-100-54	DIODE RD9.1EB2
D906	8-719-109-80	DIODE RD4.7ES-B1
FE101	1-465-095-11	(7400)...TUNER UNIT
FE101	1-465-146-11	(7201)...TUNER UNIT (FM.MW.LW)
FE101	1-465-008-23	(7202)...TUNER UNIT (AM.FM)
HP901	1-543-567-11	HEAD, MAGNETIC (PLAYBACK)
IC1	8-759-803-37	IC LM7001
IC2	8-759-145-54	IC UPD75112GF-524-3BE
IC3	8-752-330-59	IC CXK1011P
IC4	8-759-940-45	IC S-8054HN-CB
IC101	1-808-515-11	IC NMX3S900
IC201	8-759-206-48	IC TA7705F
IC202	8-759-909-71	IC BA4558F
IC301	8-759-106-23	IC UPD4066BG
IC302	8-752-018-70	IC CX20187
IC401	8-759-106-23	IC UPD4066BG
IC402	8-759-820-15	IC LC7537AN
IC403	8-759-604-56	IC M5228FP
IC404	8-759-604-56	IC M5228FP
IC405	8-759-604-56	IC M5228FP
IC601	8-759-971-69	(7202)...IC TDA1579
IC602	8-759-909-71	(7202)...IC BA4558F
IC701	8-759-141-11	IC UPD7508HG-609-22
IC702	8-759-106-23	IC UPD4066BG
IC703	8-759-909-71	IC BA4558F
IC704	8-759-600-24	IC M54543L
IC901	8-759-909-71	IC BA4558F
JR1	1-249-366-11	CARBON MELF 0 5% 1/5W
JR3	1-249-366-11	CARBON MELF 0 5% 1/5W
JR5	1-249-366-11	CARBON MELF 0 5% 1/5W
JR6	1-249-366-11	CARBON MELF 0 5% 1/5W
JR8	1-249-366-11	CARBON MELF 0 5% 1/5W
JR9	1-249-366-11	CARBON MELF 0 5% 1/5W
JR11	1-249-366-11	CARBON MELF 0 5% 1/5W
JR12	1-249-366-11	CARBON MELF 0 5% 1/5W
JR13	1-249-366-11	CARBON MELF 0 5% 1/5W
JR14	1-249-366-11	CARBON MELF 0 5% 1/5W
JR15	1-249-366-11	(7202)...CARBON MELF 0 5% 1/5W
JR16	1-249-366-11	(7202)...CARBON MELF 0 5% 1/5W
JR22	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR23	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR24	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR25	1-216-296-00	METAL GLAZE 0 5% 1/8W
JR301	1-249-366-11	CARBON MELF 0 5% 1/5W
JR302	1-249-366-11	CARBON MELF 0 5% 1/5W

Ref.No.	Part No.	Description
JR303	1-249-366-11	CARBON MELF 0 5% 1/5W
JR304	1-249-366-11	CARBON MELF 0 5% 1/5W
JR305	1-249-366-11	CARBON MELF 0 5% 1/5W
JR306	1-249-366-11	CARBON MELF 0 5% 1/5W
JR601	1-249-366-11	(7202)...CARBON MELF 0 5% 1/5W
JR602	1-249-366-11	(7202)...CARBON MELF 0 5% 1/5W
JR603	1-249-366-11	(7202)...CARBON MELF 0 5% 1/5W
JR701	1-249-366-11	CARBON MELF 0 5% 1/5W
JR702	1-249-366-11	CARBON MELF 0 5% 1/5W
JR703	1-249-366-11	CARBON MELF 0 5% 1/5W
JR704	1-249-366-11	CARBON MELF 0 5% 1/5W
JR705	1-249-366-11	CARBON MELF 0 5% 1/5W
JR708	1-249-366-11	CARBON MELF 0 5% 1/5W
JR709	1-249-366-11	CARBON MELF 0 5% 1/5W
JR710	1-249-366-11	CARBON MELF 0 5% 1/5W
JR711	1-249-366-11	CARBON MELF 0 5% 1/5W
JR712	1-249-366-11	CARBON MELF 0 5% 1/5W
JR713	1-249-366-11	CARBON MELF 0 5% 1/5W
JR716	1-249-366-11	CARBON MELF 0 5% 1/5W
JR902	1-249-366-11	CARBON MELF 0 5% 1/5W
JR903	1-249-366-11	CARBON MELF 0 5% 1/5W
JR904	1-249-366-11	CARBON MELF 0 5% 1/5W
JR905	1-249-366-11	CARBON MELF 0 5% 1/5W
JR906	1-249-366-11	CARBON MELF 0 5% 1/5W
JR907	1-249-366-11	CARBON MELF 0 5% 1/5W
JR908	1-249-366-11	CARBON MELF 0 5% 1/5W
JR909	1-249-366-11	CARBON MELF 0 5% 1/5W
JR910	1-249-366-11	CARBON MELF 0 5% 1/5W
JR911	1-249-366-11	CARBON MELF 0 5% 1/5W
JR913	1-249-366-11	CARBON MELF 0 5% 1/5W
JR914	1-249-366-11	CARBON MELF 0 5% 1/5W
L1	1-410-513-11	INDUCTOR 22UH
L2	1-410-336-11	INDUCTOR 220UH
L101	1-410-513-11	INDUCTOR 22UH
L102	1-410-521-11	INDUCTOR 100UH
L103	1-410-316-11	INDUCTOR 1UH
L301	1-235-186-00	ENCAPSULATED COMPONENT
L351	1-235-186-00	ENCAPSULATED COMPONENT
L601	1-424-036-11	(7202)...COIL (FILTER)
L701	1-410-336-11	INDUCTOR 220UH
L702	1-408-111-00	INDUCTOR 3.3UH
M901	X-3344-136-1	MOTOR ASSY, CAPSTAN
M902	A-3239-956-B	MOTOR SUB ASSY, L
PH11	8-719-939-11	GP2S09-B
PH12	8-719-939-11	GP2S09-B
PM901	1-454-461-11	SOLENOID, PLUNGER
Q1	8-729-271-22	TRANSISTOR 2SC2712G
Q2	8-729-271-22	TRANSISTOR 2SC2712G
Q4	8-729-106-64	TRANSISTOR 2SD1615
Q5	8-729-804-42	TRANSISTOR 2SB1122-T
Q6	8-729-100-76	TRANSISTOR 2SA812
Q7	8-729-805-41	TRANSISTOR 2SC3398
Q8	8-729-100-76	TRANSISTOR 2SA812
Q9	8-729-805-67	TRANSISTOR 2SA1342
Q10	8-729-271-22	TRANSISTOR 2SC2712Y

Ref.No.	Part No.	Description
Q11	8-729-805-45	TRANSISTOR 2SC3395
Q12	8-729-805-67	TRANSISTOR 2SA1342
Q14	8-729-106-64	TRANSISTOR 2SD1615
Q15	8-729-100-66	TRANSISTOR 2SC1623
Q16	8-729-805-41	TRANSISTOR 2SC3398
Q17	8-729-805-43	TRANSISTOR 2SC3396
Q18	8-729-807-12	TRANSISTOR 2SD1802FA
Q19	8-729-100-66	TRANSISTOR 2SC1623
Q20	8-729-805-43	TRANSISTOR 2SC3396
Q21	8-729-807-12	TRANSISTOR 2SD1802FA
Q22	8-729-805-43	TRANSISTOR 2SC3396
Q23	8-729-805-65	TRANSISTOR 2SA1344
Q24	8-729-100-76	TRANSISTOR 2SA812
Q101	8-729-100-66	TRANSISTOR 2SC1623
Q102	8-729-805-67	TRANSISTOR 2SA1342
Q103	8-729-100-76	TRANSISTOR 2SA812
Q104	8-729-805-43	TRANSISTOR 2SC3396
Q105	8-729-805-67	TRANSISTOR 2SA1342
Q391	8-729-805-45	TRANSISTOR 2SC3395
Q392	8-729-805-41	TRANSISTOR 2SC3398
Q401	8-729-805-67	TRANSISTOR 2SA1342
Q701	8-729-100-66	TRANSISTOR 2SC1623
Q702	8-729-100-66	TRANSISTOR 2SC1623
Q703	8-729-901-00	TRANSISTOR DTC124EK
Q704	8-729-901-00	TRANSISTOR DTC124EK
Q705	8-729-807-12	TRANSISTOR 2SD1802FA
Q706	8-729-100-76	TRANSISTOR 2SA812
Q707	8-729-100-66	TRANSISTOR 2SC1623
Q708	8-729-804-42	TRANSISTOR 2SB1122-T
Q709	8-729-901-00	TRANSISTOR DTC124EK
Q850	8-729-102-04	TRANSISTOR 2SD1020-F
Q860	8-729-102-04	TRANSISTOR 2SD1020-F
Q901	8-729-105-29	TRANSISTOR 2SB1203-S
Q902	8-729-100-66	TRANSISTOR 2SC1623
Q903	8-729-100-66	TRANSISTOR 2SC1623
Q910	8-729-804-91	TRANSISTOR 2SD1682-S
Q913	8-729-805-45	TRANSISTOR 2SC3395
Q914	8-729-100-76	TRANSISTOR 2SA812
Q915	8-729-901-00	TRANSISTOR DTC124EK
Q916	8-729-100-76	TRANSISTOR 2SA812
Q950	8-729-102-04	TRANSISTOR 2SD1020-F
Q951	8-729-102-04	TRANSISTOR 2SD1020-F
Q960	8-729-102-04	TRANSISTOR 2SD1020-F
R1	1-249-420-11	CARBON MELF 1.8K 5% 1/5W
R2	1-249-433-11	CARBON MELF 22K 5% 1/5W
R3	1-249-422-11	CARBON MELF 2.7K 5% 1/5W
R4	1-249-417-11	(7202/7400)...CARBON MELF 1K 5% 1/5W
R4	1-249-421-11	(7201).....CARBON MELF 2.2K 5% 1/5W
R6	1-249-417-11	CARBON MELF 1K 5% 1/5W
R7	1-249-416-11	CARBON MELF 820 5% 1/5W
R8	1-249-433-11	CARBON MELF 22K 5% 1/5W
R9	1-249-433-11	CARBON MELF 22K 5% 1/5W
R10	1-249-417-11	CARBON MELF 1K 5% 1/5W
R11	1-249-417-11	CARBON MELF 1K 5% 1/5W
R12	1-249-417-11	CARBON MELF 1K 5% 1/5W
R13	1-249-405-11	CARBON MELF 100 5% 1/5W
R14	1-249-417-11	CARBON MELF 1K 5% 1/5W

Ref.No.	Part No.	Description
R15	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R16	1-215-859-00	METAL OXIDE 22 5% 1W F
R17	1-216-230-00	METAL GLAZE 22K 5% 1/8W
R18	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R19	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R20	1-249-433-11	CARBON MELF 22K 5% 1/5W
R21	1-249-417-11	CARBON MELF 1K 5% 1/5W
R22	1-249-429-11	CARBON MELF 10K 5% 1/5W
R23	1-249-429-11	CARBON MELF 10K 5% 1/5W
R25	1-249-417-11	CARBON MELF 1K 5% 1/5W
R26	1-249-423-11	CARBON MELF 3.3K 5% 1/5W
R27	1-216-234-00	METAL GLAZE 33K 5% 1/8W
R28	1-249-405-11	CARBON MELF 100 5% 1/5W
R29	1-249-405-11	CARBON MELF 100 5% 1/5W
R30	1-249-417-11	CARBON MELF 1K 5% 1/5W
R31	1-249-405-11	CARBON MELF 100 5% 1/5W
R32	1-216-270-00	METAL GLAZE 1M 5% 1/8W
R34	1-249-429-11	CARBON MELF 10K 5% 1/5W
R35	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R36	1-216-224-00	METAL GLAZE 12K 5% 1/8W
R37	1-249-393-11	CARBON MELF 10 5% 1/5W
R38	1-249-438-11	CARBON MELF 56K 5% 1/5W
R39	1-249-438-11	CARBON MELF 56K 5% 1/5W
R40	1-249-438-11	CARBON MELF 56K 5% 1/5W
R41	1-249-438-11	CARBON MELF 56K 5% 1/5W
R42	1-249-438-11	CARBON MELF 56K 5% 1/5W
R43	1-249-441-11	CARBON MELF 100K 5% 1/5W
R44	1-249-441-11	CARBON MELF 100K 5% 1/5W
R45	1-216-240-00	METAL GLAZE 56K 5% 1/8W
R46	1-249-441-11	CARBON MELF 100K 5% 1/5W
R47	1-216-246-00	METAL GLAZE 100K 5% 1/8W
R50	1-249-429-11	CARBON MELF 10K 5% 1/5W
R51	1-249-429-11	CARBON MELF 10K 5% 1/5W
R54	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R55	1-249-433-11	CARBON MELF 22K 5% 1/5W
R101	1-249-421-11	CARBON MELF 2.2K 5% 1/5W
R102	1-249-433-11	CARBON MELF 22K 5% 1/5W
R103	1-249-437-11	CARBON MELF 47K 5% 1/5W
R104	1-249-426-11	CARBON MELF 5.6K 5% 1/5W
R105	1-249-437-11	CARBON MELF 47K 5% 1/5W
R106	1-249-435-11	CARBON MELF 33K 5% 1/5W
R107	1-249-419-11	(7400)...CARBON MELF 1.5K 5% 1/5W
R107	1-249-423-11	(7201)...CARBON MELF 3.3K 5% 1/5W
R107	1-249-429-11	(7202)...CARBON MELF 10K 5% 1/5W
R108	1-249-419-11	(7400)...CARBON MELF 1.5K 5% 1/5W
R108	1-249-423-11	(7201)...CARBON MELF 3.3K 5% 1/5W
R108	1-249-429-11	(7202)...CARBON MELF 10K 5% 1/5W
R109	1-249-428-11	(7400)...CARBON MELF 8.2K 5% 1/5W
R109	1-249-429-11	(7201/7202) ...CARBON MELF 10K 5% 1/5W
R110	1-249-428-11	(7400)...CARBON MELF 8.2K 5% 1/5W
R110	1-249-429-11	(7201/7202) ...CARBON MELF 10K 5% 1/5W
R111	1-249-422-11	CARBON MELF 2.7K 5% 1/5W
R112	1-249-417-11	CARBON MELF 1K 5% 1/5W
R113	1-249-441-11	CARBON MELF 100K 5% 1/5W

Ref.No.	Part No.	Description			
R114	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R115	1-249-417-11	CARBON MELF	1K	5%	1/5W
R116	1-249-430-11	CARBON MELF	12K	5%	1/5W
R117	1-249-433-11	CARBON MELF	22K	5%	1/5W
R118	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R119	1-249-417-11	CARBON MELF	1K	5%	1/5W
R151	1-249-439-11	(7201/7202) ...CARBON MELF	68K	5%	1/5W
R151	1-249-440-11	(7400)...CARBON MELF	82K	5%	1/5W
R152	1-249-439-11	(7201/7202) ...CARBON MELF	68K	5%	1/5W
R152	1-249-440-11	(7400)...CARBON MELF	82K	5%	1/5W
R201	1-249-408-11	CARBON MELF	180	5%	1/5W
R202	1-216-258-00	METAL GLAZE	330K	5%	1/8W
R203	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R204	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R205	1-215-448-00	CARBON MELF	13K	5%	1/5W
R206	1-215-448-00	CARBON MELF	13K	5%	1/5W
R225	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R226	1-249-420-11	CARBON MELF	1.8K	5%	1/5W
R227	1-215-452-00	CARBON MELF	20K	5%	1/5W
R228	1-215-452-00	CARBON MELF	20K	5%	1/5W
R229	1-249-429-11	CARBON MELF	10K	5%	1/5W
R230	1-249-432-11	CARBON MELF	18K	5%	1/5W
R231	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R251	1-249-408-11	CARBON MELF	180	5%	1/5W
R252	1-216-258-00	METAL GLAZE	330K	5%	1/8W
R253	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R254	1-216-226-00	METAL GLAZE	15K	5%	1/8W
R255	1-215-448-00	CARBON MELF	13K	5%	1/5W
R256	1-215-448-00	CARBON MELF	13K	5%	1/5W
R275	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R276	1-249-420-11	CARBON MELF	1.8K	5%	1/5W
R277	1-215-452-00	CARBON MELF	20K	5%	1/5W
R278	1-215-452-00	CARBON MELF	20K	5%	1/5W
R279	1-249-429-11	CARBON MELF	10K	5%	1/5W
R280	1-249-432-11	CARBON MELF	18K	5%	1/5W
R281	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R291	1-249-435-11	CARBON MELF	33K	5%	1/5W
R293	1-249-438-11	CARBON MELF	56K	5%	1/5W
R294	1-249-405-11	CARBON MELF	100	5%	1/5W
R295	1-249-405-11	CARBON MELF	100	5%	1/5W
R296	1-249-430-11	CARBON MELF	12K	5%	1/5W
R301	1-249-420-11	CARBON MELF	1.8K	5%	1/5W
R302	1-215-433-00	METAL	3.3K	1%	1/6W
R303	1-215-412-00	CARBON MELF	430	5%	1/5W
R304	1-215-433-00	METAL	3.3K	1%	1/6W
R305	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R306	1-249-035-00	CARBON MELF	680	5%	1/5W
R351	1-249-420-11	CARBON MELF	1.8K	5%	1/5W
R352	1-215-433-00	METAL	3.3K	1%	1/6W
R353	1-215-412-00	CARBON MELF	430	5%	1/5W
R354	1-215-433-00	METAL	3.3K	1%	1/6W
R355	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R356	1-249-035-00	CARBON MELF	680	5%	1/5W
R391	1-249-435-11	CARBON MELF	33K	5%	1/5W
R392	1-249-423-11	CARBON MELF	3.3K	5%	1/5W
R393	1-249-441-11	CARBON MELF	100K	5%	1/5W

Ref.No.	Part No.	Description			
R394	1-215-469-00	METAL	100K	1%	1/6W
R395	1-249-441-11	CARBON MELF	100K	5%	1/5W
R396	1-249-441-11	CARBON MELF	100K	5%	1/5W
R401	1-249-438-11	CARBON MELF	56K	5%	1/5W
R402	1-216-232-00	METAL GLAZE	27K	5%	1/8W
R403	1-215-493-00	CARBON MELF	1M	5%	1/5W
R404	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R405	1-249-431-11	CARBON MELF	15K	5%	1/5W
R406	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R407	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R408	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R409	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R410	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R411	1-249-347-11	CARBON MELF	10K	5%	1/8W
R412	1-249-337-11	CARBON MELF	1.5K	5%	1/8W
R413	1-249-337-11	CARBON MELF	1.5K	5%	1/8W
R414	1-249-347-11	CARBON MELF	10K	5%	1/8W
R415	1-249-417-11	CARBON MELF	1K	5%	1/5W
R416	1-215-440-00	CARBON MELF	6.2K	5%	1/5W
R417	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R418	1-249-440-11	CARBON MELF	82K	5%	1/5W
R419	1-249-423-11	CARBON MELF	3.3K	5%	1/5W
R420	1-249-440-11	CARBON MELF	82K	5%	1/5W
R451	1-249-438-11	CARBON MELF	56K	5%	1/5W
R452	1-216-232-00	METAL GLAZE	27K	5%	1/8W
R453	1-215-493-00	CARBON MELF	1M	5%	1/5W
R454	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R455	1-249-431-11	CARBON MELF	15K	5%	1/5W
R456	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R457	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R458	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R459	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R460	1-216-270-00	METAL GLAZE	1M	5%	1/8W
R461	1-249-347-11	CARBON MELF	10K	5%	1/8W
R462	1-249-337-11	CARBON MELF	1.5K	5%	1/8W
R463	1-249-337-11	CARBON MELF	1.5K	5%	1/8W
R464	1-249-347-11	CARBON MELF	10K	5%	1/8W
R465	1-249-417-11	CARBON MELF	1K	5%	1/5W
R466	1-215-440-00	CARBON MELF	6.2K	5%	1/5W
R467	1-249-429-11	CARBON MELF	10K	5%	1/5W
R468	1-249-440-11	CARBON MELF	82K	5%	1/5W
R469	1-249-423-11	CARBON MELF	3.3K	5%	1/5W
R470	1-249-440-11	CARBON MELF	82K	5%	1/5W
R490	1-216-150-00	METAL GLAZE	10	5%	1/8W
R491	1-249-435-11	CARBON MELF	33K	5%	1/5W
R493	1-216-258-00	METAL GLAZE	330K	5%	1/8W
R494	1-216-258-00	METAL GLAZE	330K	5%	1/8W
R496	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R497	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R498	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R499	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R601	1-249-437-11	(7202)...CARBON MELF	47K	5%	1/5W
R602	1-249-439-11	(7202)...CARBON MELF	68K	5%	1/5W
R603	1-249-425-11	(7202)...CARBON MELF	4.7K	5%	1/5W
R604	1-249-441-11	(7202)...CARBON MELF	100K	5%	1/5W
R605	1-249-413-11	(7202)...CARBON MELF	470	5%	1/5W
R606	1-215-489-00	(7202)...CARBON MELF	680K	5%	1/5W

Ref.No.	Part No.	Description			
R607	1-215-477-00	(7202)...CARBON MELF	220K	5%	1/5W
R608	1-249-426-11	(7202)...CARBON MELF	5.6K	5%	1/5W
R609	1-249-423-11	(7202)...CARBON MELF	3.3K	5%	1/5W
R610	1-249-426-11	(7202)...CARBON MELF	5.6K	5%	1/5W
R611	1-249-423-11	(7202)...CARBON MELF	3.3K	5%	1/5W
R612	1-215-488-00	(7202)...CARBON MELF	620K	5%	1/5W
R613	1-249-437-11	(7202)...CARBON MELF	47K	5%	1/5W
R614	1-249-435-11	(7202)...CARBON MELF	33K	5%	1/5W
R615	1-249-430-11	(7202)...CARBON MELF	12K	5%	1/5W
R616	1-215-478-00	(7202)...CARBON MELF	240K	5%	1/5W
R617	1-249-440-11	(7202)...CARBON MELF	82K	5%	1/5W
R618	1-249-437-11	(7202)...CARBON MELF	47K	5%	1/5W
R619	1-249-413-11	(7202)...CARBON MELF	470	5%	1/5W
R620	1-249-437-11	(7202)...CARBON MELF	47K	5%	1/5W
R621	1-249-437-11	(7202)...CARBON MELF	47K	5%	1/5W
R622	1-249-438-11	(7202)...CARBON MELF	56K	5%	1/5W
R701	1-215-481-00	CARBON MELF	330K	5%	1/5W
R702	1-215-481-00	CARBON MELF	330K	5%	1/5W
R703	1-249-441-11	CARBON MELF	100K	5%	1/5W
R704	1-249-441-11	CARBON MELF	100K	5%	1/5W
R705	1-249-441-11	CARBON MELF	100K	5%	1/5W
R706	1-249-441-11	CARBON MELF	100K	5%	1/5W
R707	1-249-429-11	CARBON MELF	10K	5%	1/5W
R708	1-249-429-11	CARBON MELF	10K	5%	1/5W
R709	1-249-429-11	CARBON MELF	10K	5%	1/5W
R710	1-249-429-11	CARBON MELF	10K	5%	1/5W
R711	1-249-417-11	CARBON MELF	1K	5%	1/5W
R712	1-249-441-11	CARBON MELF	100K	5%	1/5W
R713	1-249-417-11	CARBON MELF	1K	5%	1/5W
R714	1-249-437-11	CARBON MELF	47K	5%	1/5W
R715	1-249-436-11	CARBON MELF	39K	5%	1/5W
R717	1-249-436-11	CARBON MELF	39K	5%	1/5W
R718	1-249-429-11	CARBON MELF	10K	5%	1/5W
R720	1-215-473-00	CARBON MELF	150K	5%	1/5W
R721	1-249-414-11	CARBON MELF	560	5%	1/5W
R722	1-249-389-11	CARBON MELF	4.7	5%	1/5W
R723	1-249-431-11	CARBON MELF	15K	5%	1/5W
R724	1-249-414-11	CARBON MELF	560	5%	1/5W
R725	1-249-414-11	CARBON MELF	560	5%	1/5W
R726	1-249-422-11	CARBON MELF	2.7K	5%	1/5W
R727	1-249-409-11	CARBON MELF	220	5%	1/5W
R728	1-249-429-11	CARBON MELF	10K	5%	1/5W
R729	1-249-413-11	CARBON MELF	470	5%	1/5W
R731	1-249-441-11	CARBON MELF	100K	5%	1/5W
R732	1-249-403-11	CARBON MELF	68	5%	1/5W
R733	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R734	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R735	1-249-437-11	CARBON MELF	47K	5%	1/5W
R736	1-249-437-11	CARBON MELF	47K	5%	1/5W
R737	1-249-432-11	CARBON MELF	18K	5%	1/5W
R738	1-249-436-11	CARBON MELF	39K	5%	1/5W
R739	1-249-427-11	CARBON MELF	6.8K	5%	1/5W
R740	1-249-423-11	CARBON MELF	3.3K	5%	1/5W
R741	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R742	1-249-437-11	CARBON MELF	47K	5%	1/5W
R743	1-249-389-11	CARBON MELF	4.7	5%	1/5W
R744	1-249-439-11	CARBON MELF	68K	5%	1/5W
R745	1-249-429-11	CARBON MELF	10K	5%	1/5W

Ref.No.	Part No.	Description			
R746	1-249-429-11	CARBON MELF	10K	5%	1/5W
R801	1-215-408-00	CARBON MELF	300	5%	1/5W
R802	1-215-408-00	CARBON MELF	300	5%	1/5W
R803	1-249-407-11	CARBON MELF	150	5%	1/5W
R804	1-249-407-11	CARBON MELF	150	5%	1/5W
R805	1-249-407-11	CARBON MELF	150	5%	1/5W
R806	1-249-407-11	CARBON MELF	150	5%	1/5W
R807	1-249-407-11	CARBON MELF	150	5%	1/5W
R808	1-249-407-11	CARBON MELF	150	5%	1/5W
R809	1-249-407-11	CARBON MELF	150	5%	1/5W
R810	1-249-407-11	CARBON MELF	150	5%	1/5W
R853	1-249-433-11	CARBON MELF	22K	5%	1/5W
R854	1-249-417-11	CARBON MELF	1K	5%	1/5W
R855	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R860	1-249-417-11	CARBON MELF	1K	5%	1/5W
R861	1-249-433-11	CARBON MELF	22K	5%	1/5W
R863	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R901	1-249-417-11	CARBON MELF	1K	5%	1/5W
R902	1-249-417-11	CARBON MELF	1K	5%	1/5W
R903	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R904	1-249-429-11	CARBON MELF	10K	5%	1/5W
R905	1-249-429-11	CARBON MELF	10K	5%	1/5W
R907	1-249-429-11	CARBON MELF	10K	5%	1/5W
R908	1-249-429-11	CARBON MELF	10K	5%	1/5W
R909	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R922	1-249-417-11	CARBON MELF	1K	5%	1/5W
R927	1-249-417-11	CARBON MELF	1K	5%	1/5W
R928	1-249-429-11	CARBON MELF	10K	5%	1/5W
R931	1-249-429-11	CARBON MELF	10K	5%	1/5W
R932	1-249-429-11	CARBON MELF	10K	5%	1/5W
R933	1-249-421-11	CARBON MELF	2.2K	5%	1/5W
R934	1-249-429-11	CARBON MELF	10K	5%	1/5W
R942	1-249-429-11	CARBON MELF	10K	5%	1/5W
R953	1-249-433-11	CARBON MELF	22K	5%	1/5W
R954	1-249-417-11	CARBON MELF	1K	5%	1/5W
R955	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R960	1-249-417-11	CARBON MELF	1K	5%	1/5W
R961	1-249-433-11	CARBON MELF	22K	5%	1/5W
R963	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R971	1-249-437-11	CARBON MELF	47K	5%	1/5W
R972	1-249-437-11	CARBON MELF	47K	5%	1/5W
R973	1-249-431-11	CARBON MELF	15K	5%	1/5W
R974	1-249-435-11	CARBON MELF	33K	5%	1/5W
R975	1-215-493-00	CARBON MELF	1M	5%	1/5W
R976	1-215-493-00	CARBON MELF	1M	5%	1/5W
R977	1-249-414-11	CARBON MELF	560	5%	1/5W
R978	1-249-436-11	CARBON MELF	39K	5%	1/5W
R979	1-249-433-11	CARBON MELF	22K	5%	1/5W
R980	1-249-433-11	CARBON MELF	22K	5%	1/5W
R981	1-249-440-11	CARBON MELF	82K	5%	1/5W
R982	1-249-433-11	CARBON MELF	22K	5%	1/5W
R983	1-249-433-11	CARBON MELF	22K	5%	1/5W
R984	1-249-417-11	CARBON MELF	1K	5%	1/5W
R985	1-249-433-11	CARBON MELF	22K	5%	1/5W
R986	1-249-425-11	CARBON MELF	4.7K	5%	1/5W
R987	1-249-401-11	CARBON MELF	47	5%	1/5W
R988	1-249-409-11	CARBON MELF	220	5%	1/5W

Ref.No.	Part No.	Description
R989	1-249-409-11	CARBON MELF 220 5% 1/5W
R991	1-249-429-11	CARBON MELF 10K 5% 1/5W
RV101	1-230-522-11	RES, ADJ, SOLID 4.7K
RV301	1-238-259-11	RES, ADJ, CARBON 10K
RV326	1-238-259-11	RES, ADJ, CARBON 10K
RV351	1-238-259-11	RES, ADJ, CARBON 10K
RV376	1-238-259-11	RES, ADJ, CARBON 10K
S2	1-570-771-11	SWITCH (POWER)
S10	3-344-155-01	CONTACT (WITH SWITCH)
S11	1-571-138-11	SWITCH, PUSH (1 KEY)(F/R)
S12	1-571-138-11	SWITCH, PUSH (1 KEY)(TAPE-IN)
S801	1-554-813-41	SWITCH, KEY BOARD (OFF)
S802	1-554-813-41	SWITCH, KEY BOARD (LOUD)
S803	1-554-813-41	SWITCH, KEY BOARD (SHUFF 1)
S804	1-554-813-41	(7201/7400)...SWITCH, KEY BOARD (MUTE)
S804	1-554-813-41	(7202).....SWITCH, KEY BOARD (SDK)
S805	1-554-813-41	SWITCH, KEY BOARD (LEVEL -)
S806	1-554-813-41	SWITCH, KEY BOARD (LEVEL +)
S807	1-554-813-41	SWITCH, KEY BOARD (1 INTRO)
S808	1-554-813-41	SWITCH, KEY BOARD (4 D.SCAN)
S809	1-554-813-41	SWITCH, KEY BOARD (2 REREAT)
S810	1-554-813-41	SWITCH, KEY BOARD (5 SELECT)
S811	1-554-813-41	SWITCH, KEY BOARD (3 BL.SKIP)
S812	1-554-813-41	SWITCH, KEY BOARD (6 SHUFF.2)
S813	1-554-813-41	SWITCH, KEY BOARD (SEEK-REW AMS)
S814	1-554-813-41	SWITCH, KEY BOARD (MAN-DISC REW)
S815	1-554-813-41	(7201/7400) ...SWITCH, KEY BOARD (M.SCAN A.MEM)
S815	1-554-813-41	(7202)...SWITCH, KEY BOARD (SENS DOLBY)
S816	1-554-813-41	SWITCH, KEY BOARD (RESET)
S817	1-554-813-41	(7201/7400) ...SWITCH, KEY BOARD (METAL LOCAL)
S817	1-554-813-41	(7202)...SWITCH, KEY BOARD(A.MEM METAL)
S818	1-554-813-41	(7201/7400) ...SWITCH, KEY BOARD (MONO DOLBY)
S818	1-554-813-41	(7202).....SWITCH, KEY BOARD (DSPL)
S819	1-554-813-41	SWITCH, KEY BOARD (SEEK + FF AMS)
S820	1-554-813-41	SWITCH, KEY BOARD (MAN + DISC FF)
S821	1-554-813-41	SWITCH, KEY BOARD (EJECT)
S822	1-554-813-41	SWITCH, KEY BOARD (TUNER FM/AM)
S823	1-554-813-41	SWITCH, KEY BOARD (CD PLAY PAUSE)
S824	1-554-813-41	SWITCH, KEY BOARD (TAPE DIR/PLAY)
SW901	1-571-520-11	SWITCH, SLIDE (6dB/12dB/18dB)
SW902	1-571-521-11	SWITCH, SLIDE (80Hz/120Hz)

Ref.No.	Part No.	Description
X1	1-567-848-11	VIBRATOR, CRYSTAL (7.2MHz)
X2	1-567-170-00	OSCILLATOR, CERAMIC (4.19MHz)
X101	1-567-250-11	OSCILLATOR, CERAMIC
X701	1-567-170-00	OSCILLATOR, CERAMIC (4.19MHz)

ACCESSORY & PACKING MATERIAL

3-302-126-01	SCREW, TAPPING (DIA. 5X20)
3-310-655-01	SUPPORT (ND), FITTING
3-336-617-01	BAG, PROTECTION
3-339-410-01	COVER, PIN JACK
3-349-410-01	BUSHING
3-566-347-00	COVER (A), CONNECTOR
*3-349-456-01	BRACKET (FIX, LEFT)
*3-349-457-01	BRACKET (FIX, RIGHT)
*3-349-458-01	FRAME, ORNAMENTAL
*3-349-480-01	(7400:US).....INDIVIDUAL CARTON
*3-349-481-01	(7400:Canadian)...INDIVIDUAL CARTON
*3-349-482-01	(7201)...INDIVIDUAL CARTON
*3-349-484-01	(7202)...INDIVIDUAL CARTON
*3-349-488-01	CUSHION (UPPER)
*3-349-489-01	CUSHION (LOWER)
3-750-045-11	(7201)...MANUAL, INSTRUCTION
3-750-045-41	(7202)...MANUAL, INSTRUCTION
3-750-046-11	(7201)...MANUAL, INSTRUCTION
3-750-046-41	(7202)...MANUAL, INSTRUCTION
3-786-941-21	(7400)...MANUAL, INSTRUCTION
3-786-942-21	(7400)...MANUAL, INSTRUCTION
7-682-583-04	SCREW +P 5X40
7-684-025-04	N 5, TYPE 2

Troubleshooting Guide

The following checks will assist in the correction of most problems which you may encounter with your unit.
Before going through the check list below, first refer back to the connection and operating procedures.

Radio reception

Trouble	Cause/Remedy
Preset tuning is not possible.	• Memorize the correct frequency. • The broadcast is weak. → Use manual tuning.
Automatic tuning is not possible.	• The broadcast is weak. → Use manual tuning.
The STEREO indicator flickers.	• Tune in precisely. • The broadcast is weak. → Press the MONO button.

Tape playback

Playback sound is distorted.	• Contamination of the tape head. → Clean the head.
The AMS does not operate correctly.	• There is a noise in the space between selections. • A blank space is too short (less than 4 seconds). • FF is pressed immediately before the following selection. • REW is pressed immediately after the selection starts. • A long pause, or a passage of low frequencies or very low sound level is treated as a blank.

Disc play

No sound	• The unit is in the pause mode.
Playback sound is skipped.	• Dusty or defective disc.

General

No sound	• Control the volume with the LEVEL button. • Set the fader control to the center position on the 2-speaker system.

About the error displays (When the optional CD auto changer is connected.)
The following indicator flickers for about five seconds and alarm sound is heard.

Display	Cause	Remedy
E-01	The disc magazine is not inserted in the CD auto change.	Insert the disc magazine with discs in it into the CD auto changer.
E-02	No disc is inserted in the disc magazine.	Take out the magazine and insert the discs.
E-04	The disc is dirty.	Clean the disc.
	The disc is inserted upside down.	Insert the disc correctly.
E-99	The CD auto changer cannot be operated because of some trouble.	Press the reset button of the XR-7400.
WAIT	The temperature is too high and the protection circuit has activated.	Wait till the unit cools off.

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